NATIVE COMMUNITY MANAGEMENT AREAS

Native community management areas are managed with the primary objective of representing, restoring, and perpetuating native plant and animal communities, whether upland, wetland, or aquatic and other aspects of native biological diversity. Management activities are designed to achieve land management objectives through natural processes (passive management) whenever possible and active management techniques that mimic natural processes.

Native community management areas will be managed to provide the full range of native plant and animal communities found on the Black River State Forest. Only those areas of highest value for protection or community restoration were selected. One of the common objectives for these areas is to maintain and develop older, more diverse, closed canopy forests.

Please refer to the General Forest Management Prescriptions on page 98 for prescriptions by forest type. These prescriptions apply and all management activities are authorized, except as noted below for these management areas.

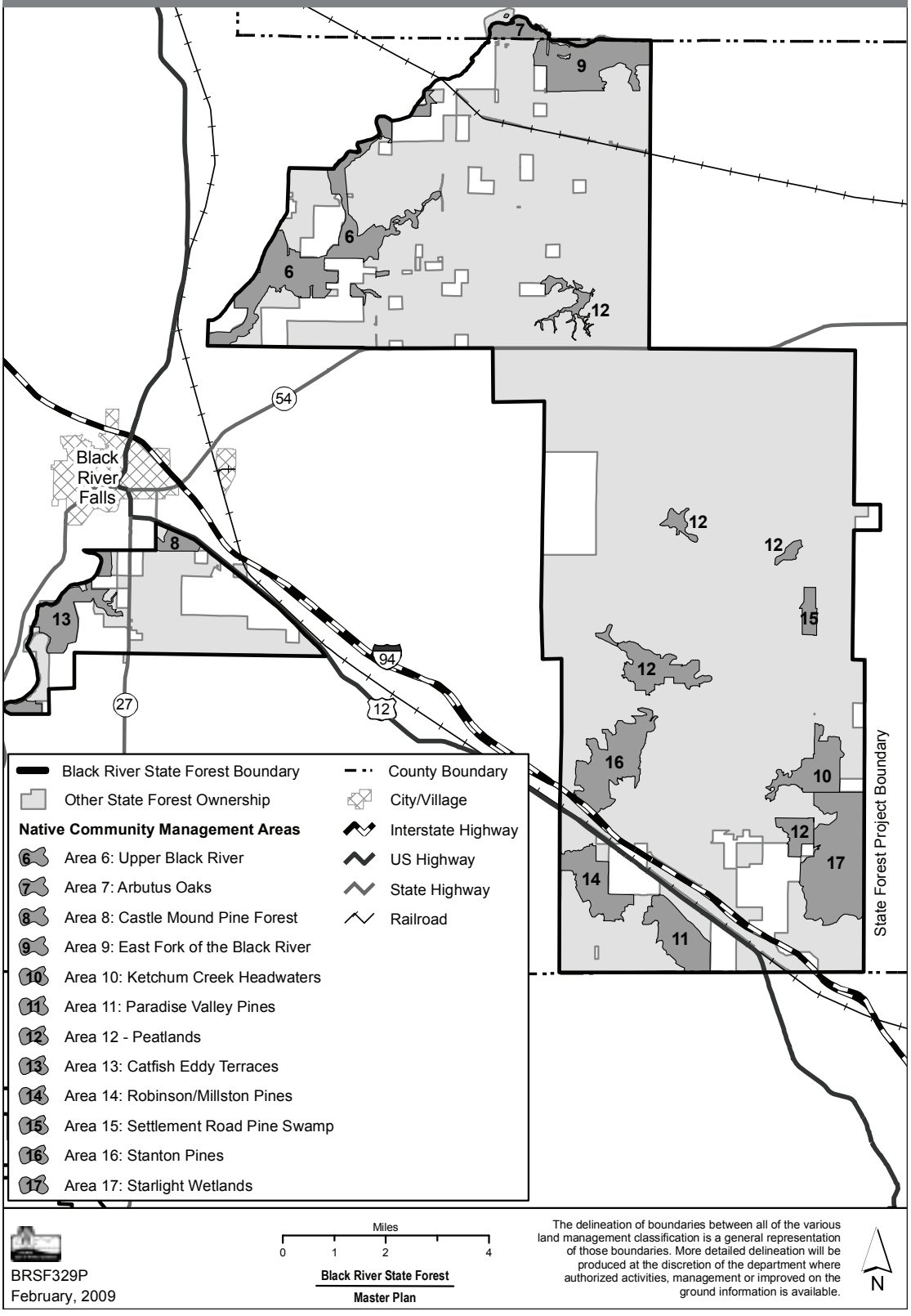
TABLE 2.9 NATIVE COMMUNITY MANAGEMENT AREAS

Area #	Native Community Management Areas	Acres	Active Managment (Acres)	Passive Managment (Acres)
6	Upper Black River	1,909	455	1,454
7	Arbutus Oaks	215	—	215
8	Castle Mound Pine Forest	171	53	118
9	East Fork of the Black River	1,083	575	508
10	Ketchum Creek Headwaters	581	284	297
11	Paradise Valley Pines	669	595	74
12	Peatlands	1,203	—	1,203
13	Catfish Eddy Terraces	745	445	300
14	Robinson/Millston Pines	626	500	126
15	Settlement Road Pine Swamp	156	43	113
16	Stanton Pines	971	971	—
17	Starlight Wetlands	1,650	818	832
	Total	**9,979**	**4,739**	**5,240**

** Includes a designated State Natural Area*

NATIVE COMMUNITY MANAGEMENT AREAS

MAP 2.10 NATIVE COMMUNITY MANAGEMENT AREAS



AREA 6: UPPER BLACK RIVER

This 1,909 acre native community management area is primarily located within a narrow corridor along the Black River, Morrison Creek, Valentine Creek, and Dickey Creek, and generally between County Highway E to the west, Bottoms Road to the south, and County Highway K to the east and north. This is a highly complex system significant for aquatic and terrestrial features, and diverse in terms of hydrology, topography, soils, animals, and vegetation. Morrison Creek is a high-quality example of a fast-soft-warm water stream with excellent macroinvertebrate diversity, including one globally imperiled and one globally rare species. Portions of Morrison Creek, Valentine Creek, Dickey Creek, and Halls Creek flow through steep-walled gorges of geologically unique Cambrian sandstone. The more extensive natural communities of the site are floodplain forest, southern mesic forest, northern dry-mesic forest, and southern dry-mesic forest. Small patch natural community types include dry cliff, moist cliff, forested seep, hemlock relict, white pine-red maple swamp, and alder thicket. The area is known to contain numerous rare species (as identified in the Biotic Inventory) including six state threatened vertebrate animals, one state endangered freshwater mussel, two state endangered plants, two state threatened plants, and numerous Species of Greatest Conservation Need and Species of Special Concern. The area is also significant for its scenic and recreational attributes.

Description of the Forest Resource

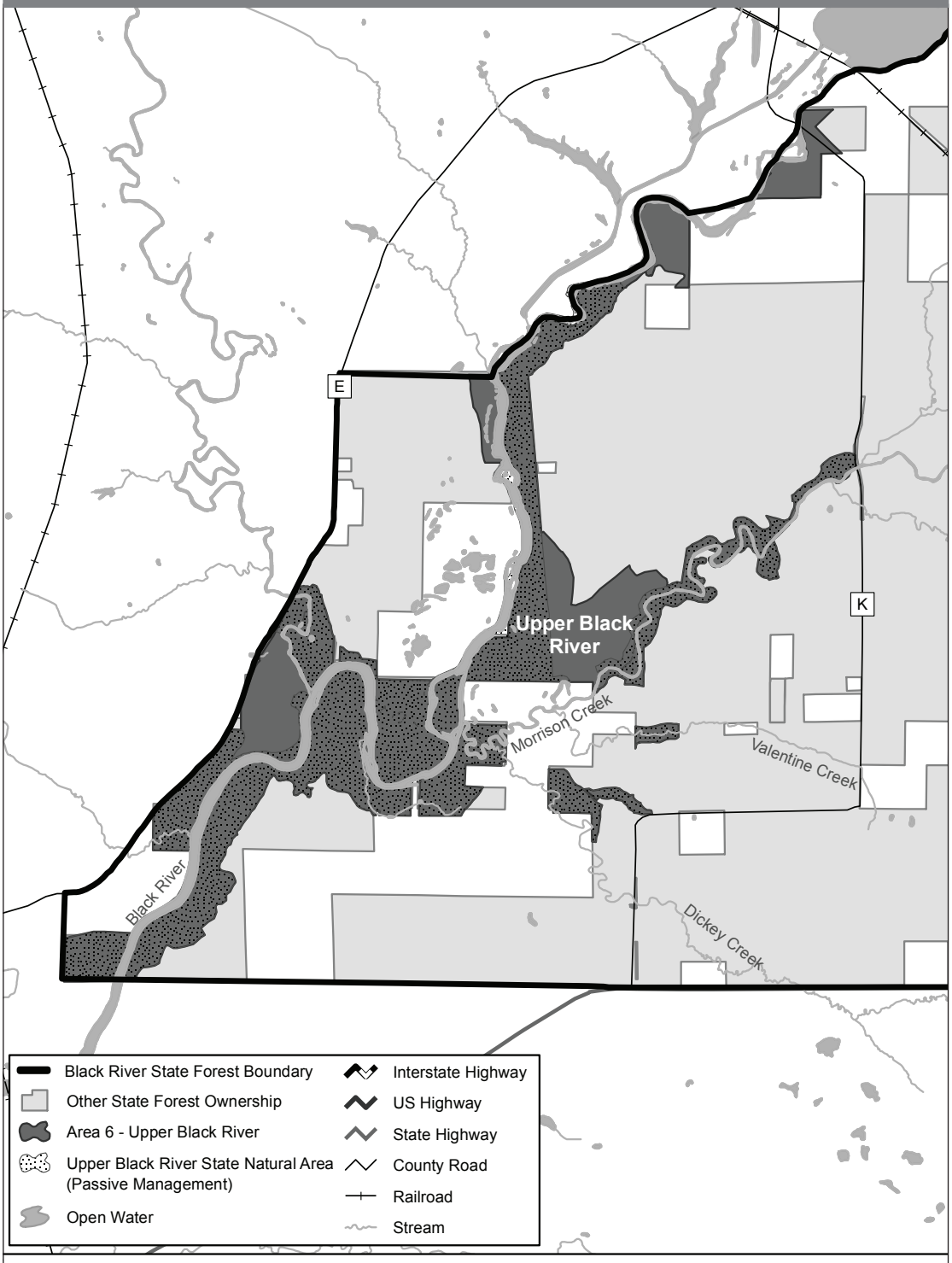
Due to landscape features like steep slopes, cliffs, springs, seeps, and islands, portions of this area have experienced little or no timber harvesting. The most common timber types in

AREA 6 SUMMARY

- Maintain and develop older, diverse, closed canopy forests representing later successional stages, including areas of old growth.
- Protect scenic qualities along the Black River and its major tributaries, and maintain an area of unfragmented bottomland forest.
- Protect, manage, and enhance natural communities and habitat for key species identified in the Biotic Inventory and for ecological values.
- Protect and enhance water resources.
- Designate a 1,454 acre State Natural Area.

AREA 6 LOCATOR MAP

MAP 2.11 UPPER BLACK RIVER



upland areas are white pine and oak and, to a lesser extent, jack pine, red pine, aspen, and red maple. Tree species in the lowland areas include silver maple, red maple, sugar maple, river birch, yellow birch, black ash, hackberry, bitternut hickory, butternut, and American elm as well as white pine, oak, and some basswood. The site contains the only known hemlock relict within the Black River State Forest.

Long-Term Management Objectives (100 years)
Provide a large area of structurally and functionally diverse, older, intact, connected forest comprised of old growth mixed hardwood and conifer species. Preserve coarse woody debris and standing dead snags for old growth habitat and structural diversity. Protect, manage, and enhance natural communities for ecological values and rare species habitat needs.

Short-Term Management Objectives (50 years)

- Develop and maintain an older, closed canopy forest of longer-lived species such as white pine in the uplands and maple, yellow birch, oak, and white pine in the lowlands.
- Enhance forest structural diversity and development of old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
- Protect water quality through protection and maintenance of riparian habitat and seeps consistent with the Best Management Practices (BMPs) for water quality.
- Protect multiple scenic and aesthetic qualities of the Black River and its major tributaries.

Area Specific Resource Management Prescriptions
Active Management (455 acres)

- Decrease short-lived tree species, such as aspen, and increase longer-lived species, such as white pine, primarily through thinning and natural conversion.
- Promote the growth and retention of large white pine, oak, and other hardwood species through techniques such as thinning, extended rotation, and managed old growth. Follow the DNR Old Growth and Old Forest Handbook management guidelines, particularly related to "Managed Old-Forests."Monitor composition and structure changes to aid future management decisions.
- Retain snags and coarse woody debris to promote old growth characteristics when retention does not conflict with other forest management activities or present hazards.
- For the riparian lands along the Black River, follow the DNR Silviculture and Forest Aesthetics Handbook guidelines for Class A Scenic Management Zones.

FIGURE 2.7 UPPER BLACK RIVER CURRENT LAND COVER

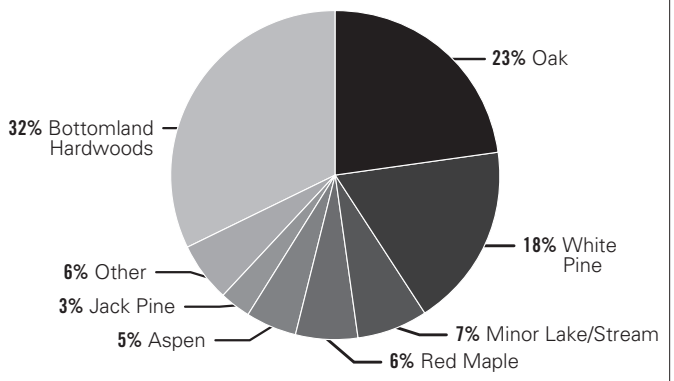


TABLE 2.10 UPPER BLACK RIVER CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
Bottomland Hardwoods	604	32%	604	32%
Oak	436	23%	390	20%
White Pine	345	18%	412	22%
Red Maple	107	6%	126	7%
Aspen	105	5%	65	3%
Jack Pine	68	3%	68	3%
Non-forested Types				
Minor Lake/Stream	136	7%	136	7%
Other	108	6%	108	6%
Total	**1,909**	**100%**	**1,909**	**100%**

Area Specific Resource Management Prescriptions
Passive Management (1,454 acres)

- Control of invasive species, non-commercial forest practices, and prescribed fire may occur.
- Designate the 1,454 acre Upper Black River State Natural Area.

UPPER BLACK RIVER

AREA 7: ARBUTUS OAKS

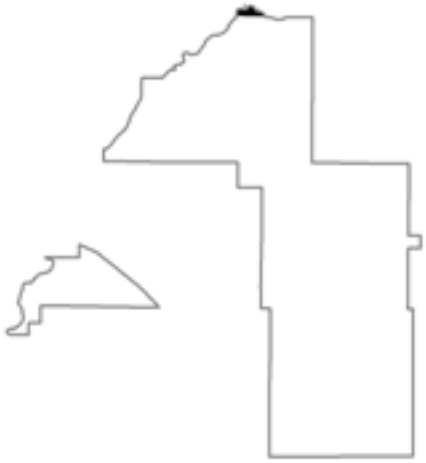
This 215 acre native community management area is primarily located south of Lake Arbutus and between Campground Road, Clay School Road, and East Fork Road. Although small, this site is important for its scenic, aquatic, and terrestrial features. It represents over one mile of undeveloped lakeshore with both oak and white pine that are over 90 years old. Dominant natural communities of the site are southern dry-mesic forest and a small area of white pine-red maple swamp. One state threatened animal is known to exist in the area as indentified in the Biotic Inventory. It is likely that there are also other rare species in the area.

Description of the Forest Resource
The most common timber types in this area are oak and white pine.

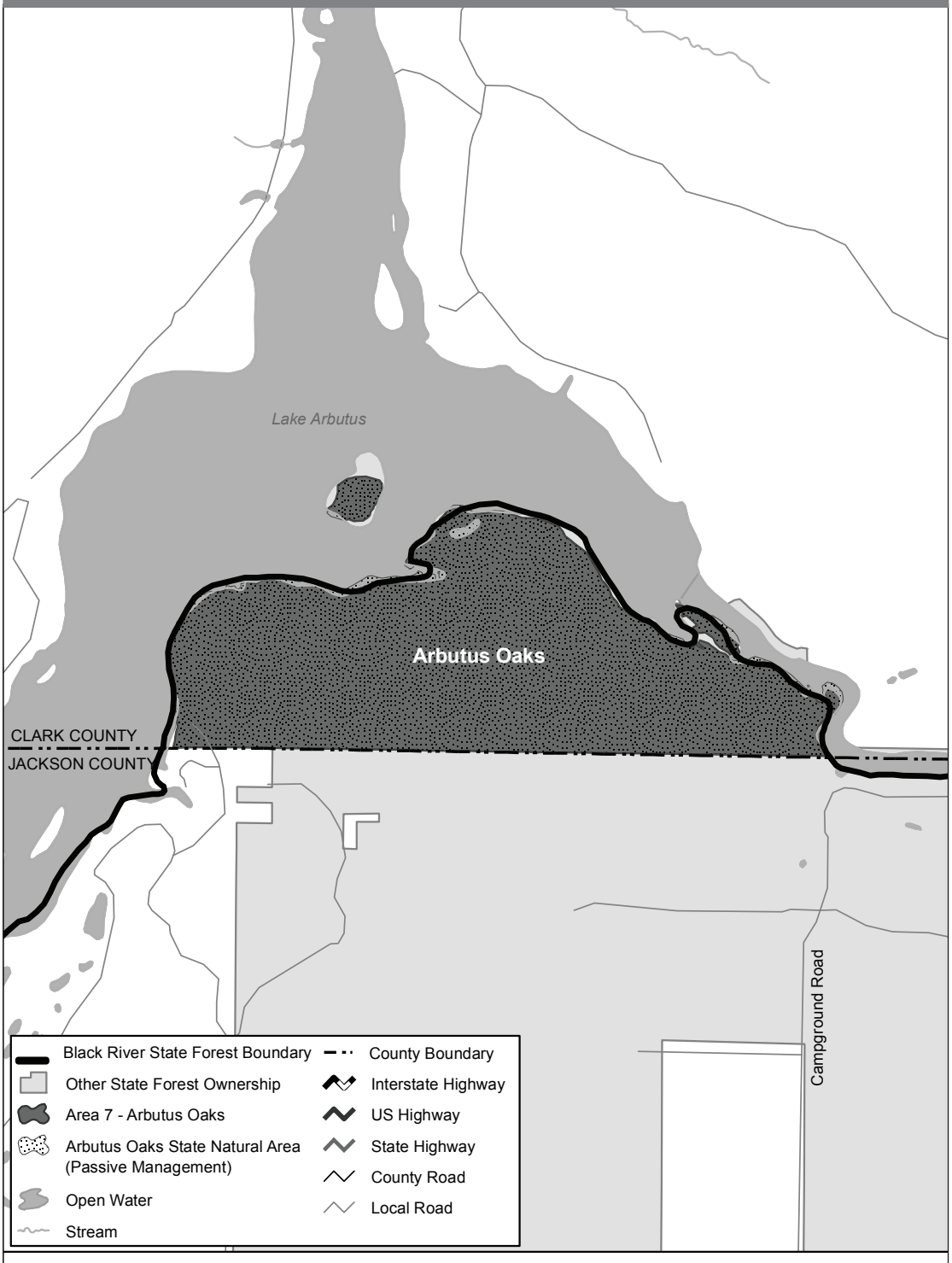
AREA 7 SUMMARY

- Protect multiple scenic and aesthetic qualities of the site.
- Protect and enhance water resources.
- Protect, manage and enhance natural communities for ecological values and rare species identified in the Biotic Inventory.
- Maintain and develop older closed canopy forests, including some areas for potential old growth.

AREA 7 LOCATOR MAP



MAP 2.12 ARBUTUS OAKS



Long-Term Management Objectives (100 years)
Provide a large area of structurally and functionally diverse, older, intact, connected forest comprised of old growth mixed hardwood and conifer species. Preserve coarse woody debris and standing dead snags for old growth habitat and structural diversity.

Short-Term Management Objectives (50 years)
- Protect the scenic and aesthetic qualities of the site, including the shoreline of Lake Arbutus.
- Develop and maintain an older, closed canopy forest of longer-lived species such as oak and white pine.
- Enhance forest structural diversity and development of old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
- Protect water quality through protection and maintenance of riparian habitat and seeps consistent with Best Management Practices (BMPs) for water quality.

Area Specific Resource Management Prescriptions
Active Management
There are no acres in this designation.

Area Specific Resource Management Prescriptions
Passive Management (215 acres)
- Allow old growth and old forest characteristics to develop, using the guidelines in the DNR Old Growth and Old Forest Handbook.
- Retain snags and coarse woody debris to promote old growth characteristics when retention does not present hazards.
- For the shoreline along Lake Arbutus, follow the DNR Silviculture and Forest Aesthetics Handbook guidelines for Class A Scenic Management Zones.
- Control of invasive species, non-commercial forest practices, and prescribed fire may occur.
- Designate the 215 acre Arbutus Oaks State Natural Area.

FIGURE 2.8 ARBUTUS OAKS CURRENT LAND COVER

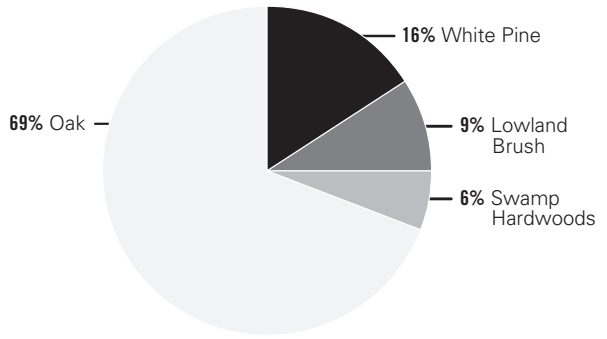


TABLE 2.11 ARBUTUS OAKS CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
Oak	148	69%	128	60%
White Pine	35	16%	55	25%
Swamp Hardwoods	12	6%	12	6%
Non-forested Types				
Lowland Brush	20	9%	20	9%
Total	**215**	**100%**	**215**	**100%**

AREA 8: CASTLE MOUND PINE FOREST

This 171 acre native community management area is located between Highway 12 to the north, 7th Street to the south, and Castle Mound Campground to the northeast. This site is an old forest of white pine and red pine nearing old growth conditions. It covers the slopes and crest of a one mile long, 200 foot high Cambrian sandstone butte that runs northwest to southeast. The dominant natural community is northern dry-mesic forest featuring several rare plants, including one that is state endangered. The site includes resident bird life with many northern species such as Pine, Black-throated Green and Blackburnian Warblers, Red-breasted Nuthatch, Northern Raven, and Solitary Vireo. The area is also significant for its scenic and recreational attributes.

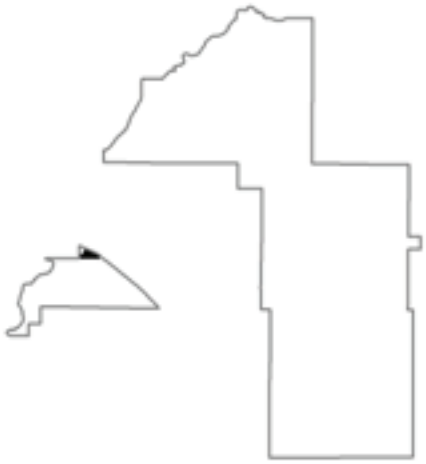
Description of the Forest Resource

Timber harvesting in this area has been limited due to steep slopes and cliffs, scenic and recreational attributes, and the State Natural Area designation. The most common timber types are white pine, red pine, red oak, and, to a lesser extent, jack pine, aspen, and red maple.

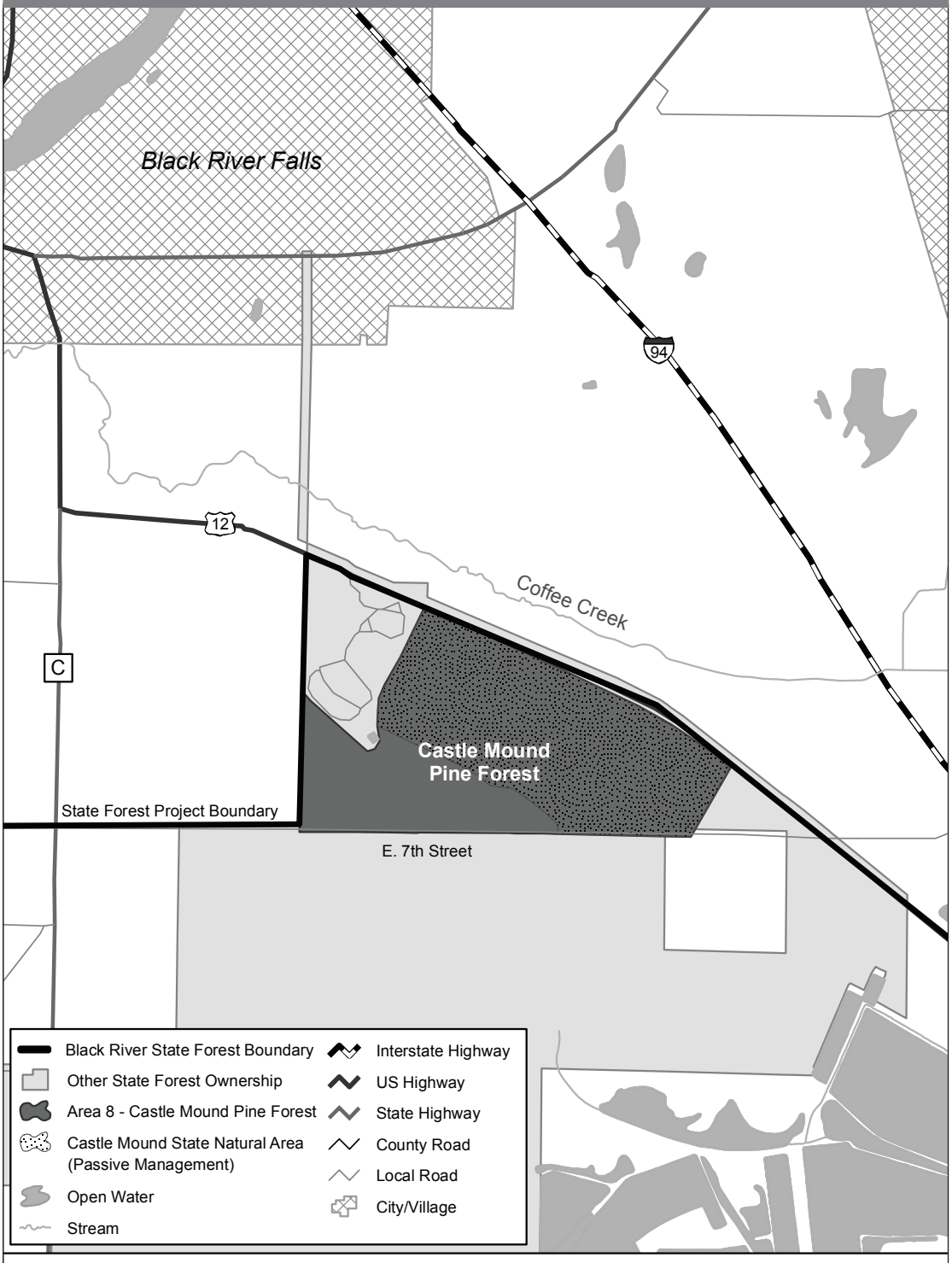
AREA 8 SUMMARY

- Maintain and develop older, closed canopy forests, including potential old growth.
- Protect, manage, and enhance habitat for key species identified in the Biotic Inventory.
- Protect and enhance scenic, recreational, and aesthetic values.
- Designate a 118 acre State Natural Area (91 acres of existing SNA, 27 acres of new SNA).

AREA 8 LOCATOR MAP



MAP 2.13 CASTLE MOUND PINE FOREST



Long-Term Management Objectives (100 years)
Provide a structurally and functionally diverse, older, intact, connected forest on an upland site comprised of old growth mixed hardwood and conifer species. Preserve coarse woody debris and standing dead snags for old growth habitat and structural diversity. Protect, manage, and enhance the natural community for ecological values and rare species habitat needs.

Short-Term Management Objectives (50 years)
- Develop and maintain an older, closed canopy forest of longer-lived species such as white pine and red pine.
- Enhance forest structural diversity and development of old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
- Protect multiple scenic, aesthetic, and recreational qualities of the site.

Area Specific Resource Management Prescriptions
Active Management (53 acres)
- Decrease short-lived species, such as aspen, and increase longer-lived species, such as white pine, red pine, and oak, primarily through natural conversion and thinning.
- Promote the growth and retention of large white pine, red pine, and oak through techniques such as thinning, extended rotation, and managed old growth. Follow the DNR Old Growth and Old Forest Handbook management guidelines, particularly related to Managed Old Growth forests. Monitor composition and structure changes to aid future management decisions.
- Retain snags and coarse woody debris to promote old growth characteristics whenever their retention does not present hazards or conflict with other forest management activities.
- Follow the DNR Silviculture and Forest Aesthetics Handbook guidelines to manage the scenic, aesthetic, and recreational qualities of the site.
- Control buckthorn and other invasive plant infestations.

Area Specific Resource Management Prescriptions
Passive Management (118 acres)
- Control of invasive species, non-commercial forest practices, and prescribed fire may occur.
- Designate the 118 acre Castle Mound State Natural Area (91 acres of existing SNA, 27 acres of new SNA).

FIGURE 2.9 CASTLE MOUND PINE FOREST CURRENT LAND COVER

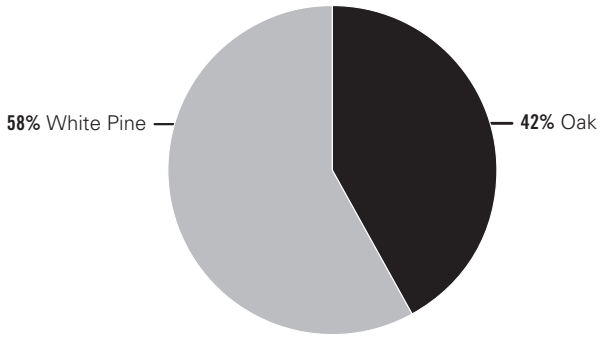
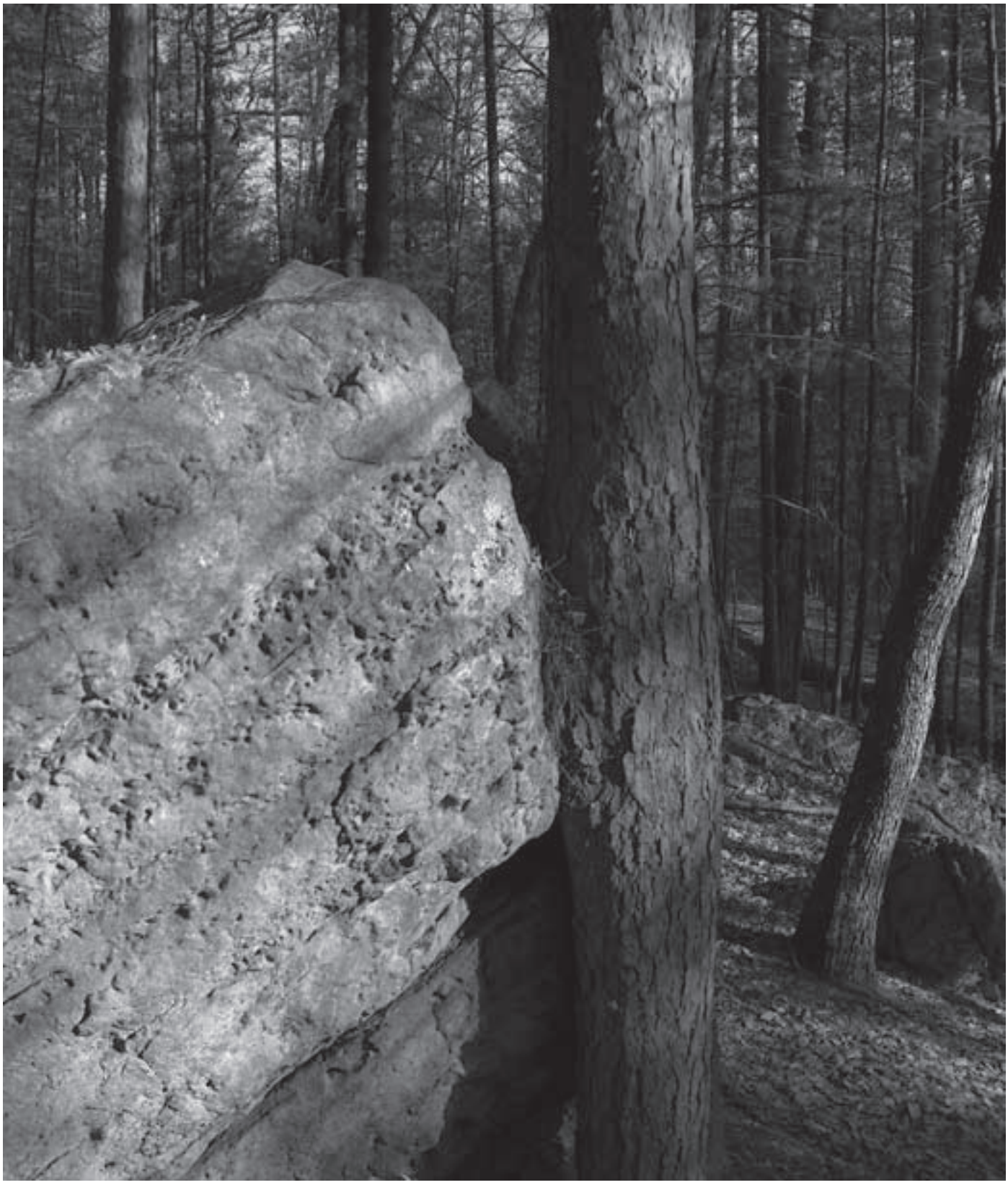


TABLE 2.12 CASTLE MOUND PINE FOREST CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
White Pine	99	58%	99	58%
Oak	72	42%	72	42%
Total	**171**	**100%**	**171**	**100%**



AREA 9: EAST FORK OF THE BLACK RIVER

This 1,083 acre native community management area is primarily located south of the East Fork of the Black River between Campground Road, Clay School Road, and East Fork Road. A few small parcels are included north of the East Fork of the Black River. This is a complex system significant for both its aquatic and terrestrial features, and diverse in terms of hydrology, topography, soils, animals, and vegetation. The East Fork of the Black River contains excellent macroinvertebrate diversity, including 10 Species of Special Concern, three that are globally imperiled, as well as three special concern freshwater mussel species. The southern extremity of the Canadian shield is exposed here, exemplified by pre-Cambrian granitic bedrock outcroppings that occur along the shores. The more dominant natural communities of the site are white pine-red maple swamp and central sands pine-oak forest. Small patch natural community types that are also important here include tamarack swamp, northern sedge meadow, and alder thicket. According to the Biotic Inventory, the area contains two state threatened birds, three plant Species of Special Concern, and several Species of Greatest Conservation Need. The diversity of northern bird species is also significant here and includes Pine, Black-throated Green, Blackburnian, Nashville, Golden-winged, and Canada Warblers, as well as Hermit Thrush, Veery, and Northern Raven. The area is also significant for its scenic attributes and adjacent recreational areas.

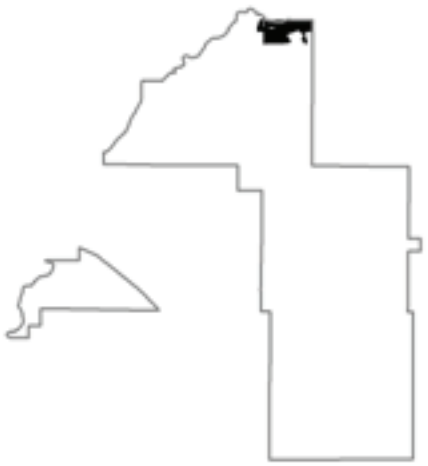
Description of the Forest Resource

The most common timber type is white pine and, to a lesser extent, oak, jack pine, tamarack, and red maple. The site also contains several red pine plantations.

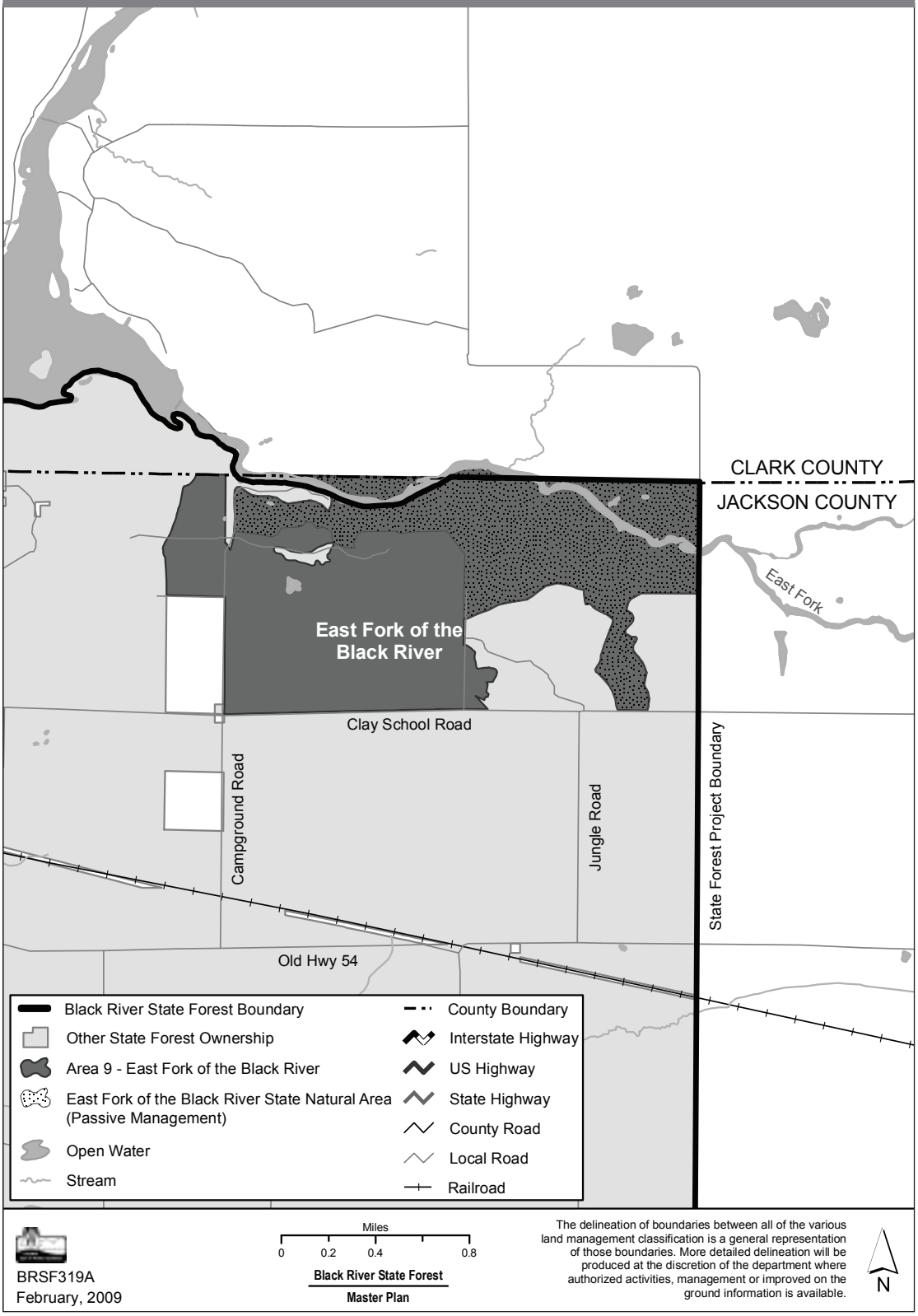
AREA 9 SUMMARY

- Maintain and develop older closed canopy forest, including potential areas for old growth.
- Manage and maintain a large area of un-fragmented conifer/mixed forest.
- Protect, manage, and enhance habitat for key species identified in the Biotic Inventory.
- Protect and enhance water resources and areas with scenic and aesthetic values.
- Manage red pine plantations to create a natural appearance.
- Designate a 471 acre State Natural Area.

AREA 9 LOCATOR MAP



MAP 2.14 EAST FORK OF THE BLACK RIVER



BRSF319A
February, 2009

The delineation of boundaries between all of the various land management classification is a general representation of those boundaries. More detailed delineation will be produced at the discretion of the department where authorized activities, management or improved on the ground information is available.

Long-Term Management Objectives (100 years)
Provide a large area of structurally and functionally diverse, older, intact, connected forest comprised of old growth pine, mixed hardwoods, and mixed conifer species. Preserve coarse woody debris and standing dead snags for old growth habitat and structural diversity. Protect, manage, and enhance natural communities for ecological values and rare species habitat needs.

Short-Term Management Objectives (50 years)
- Develop and maintain an older, closed canopy forest of longer-lived species such as white pine and oak.
- Enhance forest structural diversity and development of old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
- Protect water quality through protection and maintenance of riparian habitat and seeps consistent with Best Management Practices (BMPs) for water quality.
- Protect multiple scenic, aesthetic, and recreational qualities of the East Fork of the Black River.

Area Specific Resource Management Prescriptions
Active Management (575 acres)
- Decrease short-lived species, such as aspen, and increase longer-lived species, such as white pine, primarily through thinning and natural conversion.
- Promote the growth and retention of large white pine, oak, and other hardwood species through techniques such as thinning, extended rotation, and managed old growth. Follow the DNR Old Growth and Old Forest Handbook management guidelines, particularly related to Managed Old Growth forests.
- Thin specific stands in a way that maintains closed canopy conditions within one third of the actively managed area.
- Actively manage red pine plantations primarily through thinning and natural regeneration techniques to create stands with a natural appearance and large diameter trees.
- Retain snags and coarse woody debris to promote old growth characteristics when retention does not conflict with other forest management activities or present hazards.
- For the riparian lands along the East Fork of the Black River, follow the DNR Silviculture and Forest Aesthetics Handbook guidelines for Class A Scenic Management Zones.

Area Specific Resource Management Prescriptions
Passive Management (508 acres)
- Designate the 471 acre East Fork of the Black River State Natural Area.

FIGURE 2.10 EAST FORK OF THE BLACK RIVER CURRENT LAND COVER

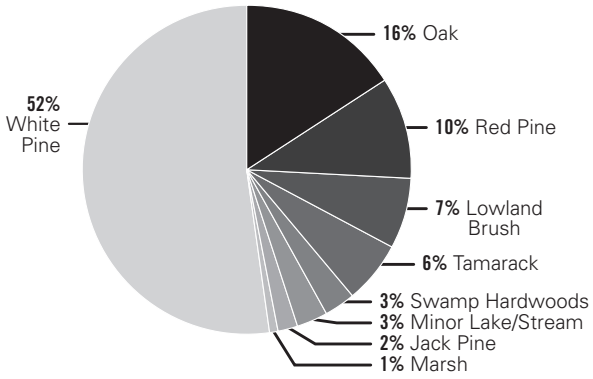
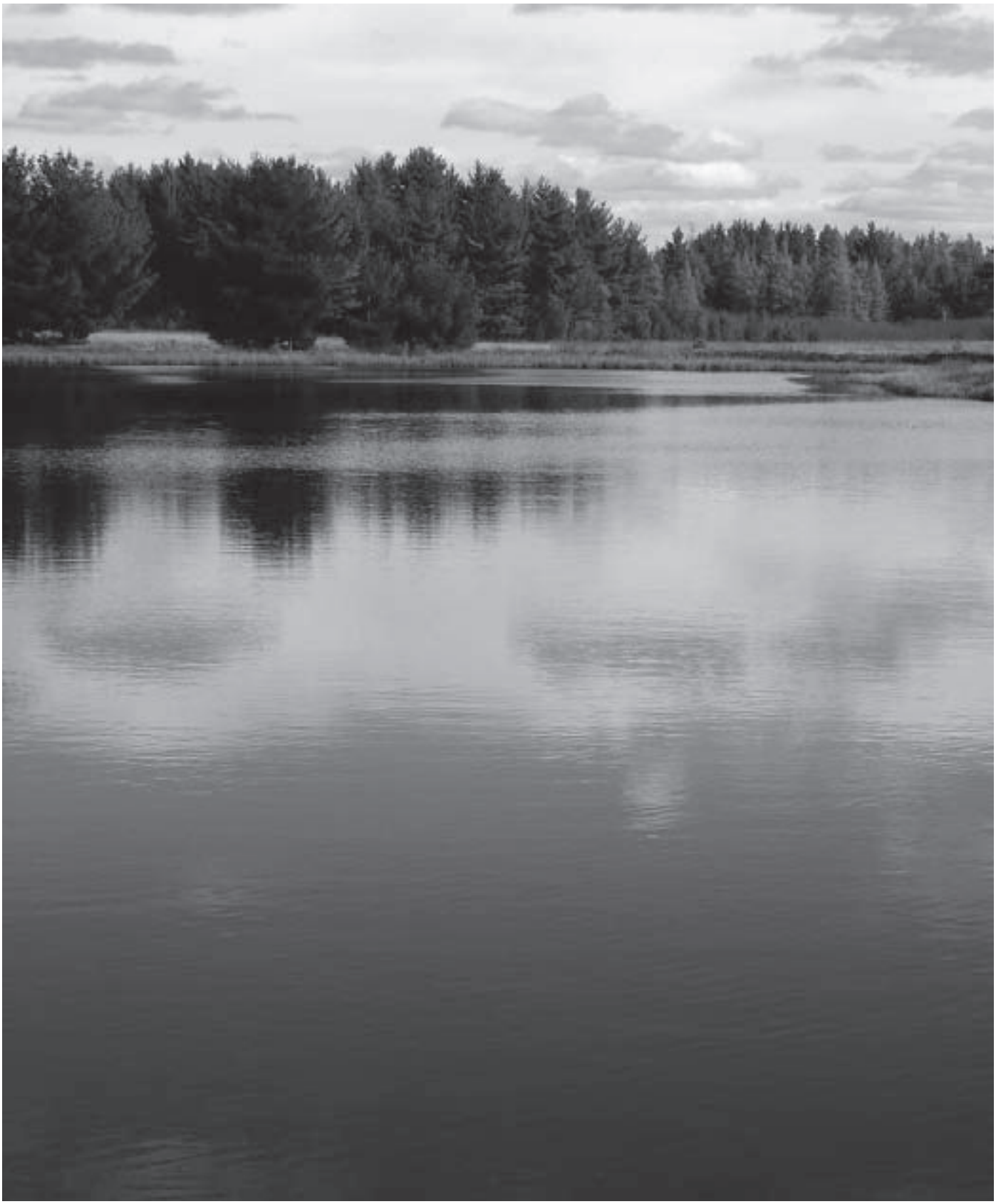


TABLE 2.13 EAST FORK OF THE BLACK RIVER CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
White Pine	560	52%	605	56%
Oak	174	16%	148	14%
Red Pine	112	10%	112	10%
Tamarack	64	6%	64	6%
Swamp Hardwoods	33	3%	33	3%
Jack Pine	19	2%	0	0%
Non-forested Types				
Lowland Brush	76	7%	76	7%
Minor Lake/Stream	31	3%	31	3%
Marsh	14	1%	14	1%
Total	**1,083**	**100%**	**1,083**	**100%**



AREA 10: KETCHUM CREEK HEADWATERS

This 581 acre native community management area is located immediately north and west of the intersection of County Trunk O and Smrekar Road. This is a complex system significant for its aquatic and terrestrial features, and diverse in terms of hydrology, soils, animals, and vegetation. The site consists of three natural communities connecting the uplands to the northeast, through the headwaters of Ketchum Creek, to the lowlands of Whitney Marsh to the southwest. The dominant natural communities that make up this continuum are northern dry-mesic forest, white pine-red maple swamp, and central poor fen. According to the Biotic Inventory, this area is known to contain one state threatened animal, five animal Species of Special Concern, six plant Species of Special Concern, and several Species of Greatest Conservation Need. The diversity of northern bird species is also significant here and includes Pine, Black-throated Green, and Blackburnian Warblers, as well as Veery, Red-breasted Nuthatch and Northern Raven. The area is significant for its aesthetic attributes.

Description of the Forest Resource
The most common timber types are white pine, oak, and tamarack, and, to a lesser extent aspen. Other species also present are red maple and yellow birch.

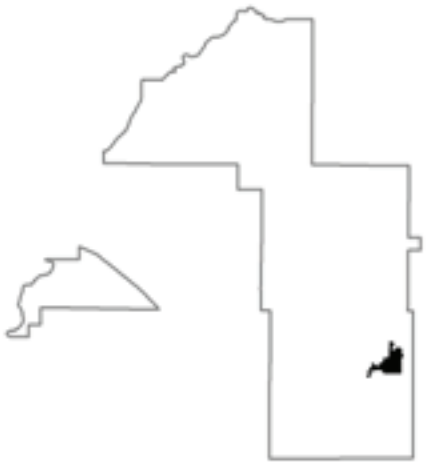
Long-Term Management Objectives (100 years)
Maintain and enhance a large area of structurally and functionally diverse, older, intact, connected forest comprised of old growth mixed hardwood and conifer species. Preserve coarse woody debris and standing dead snags to promote old growth habitat and structural diversity. Protect, manage, and enhance natural communities for ecological values and rare species habitat needs.

Short-Term Management Objectives (50 years)
- Develop and maintain an older, closed canopy forest of longer-lived species such as white pine and oak.
- Enhance forest structural diversity and development of old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
- Protect water quality through protection and maintenance of wetland habitat and seeps consistent with Best Management Practices (BMPs) for water quality.
- Protect multiple scenic and aesthetic qualities of the site.

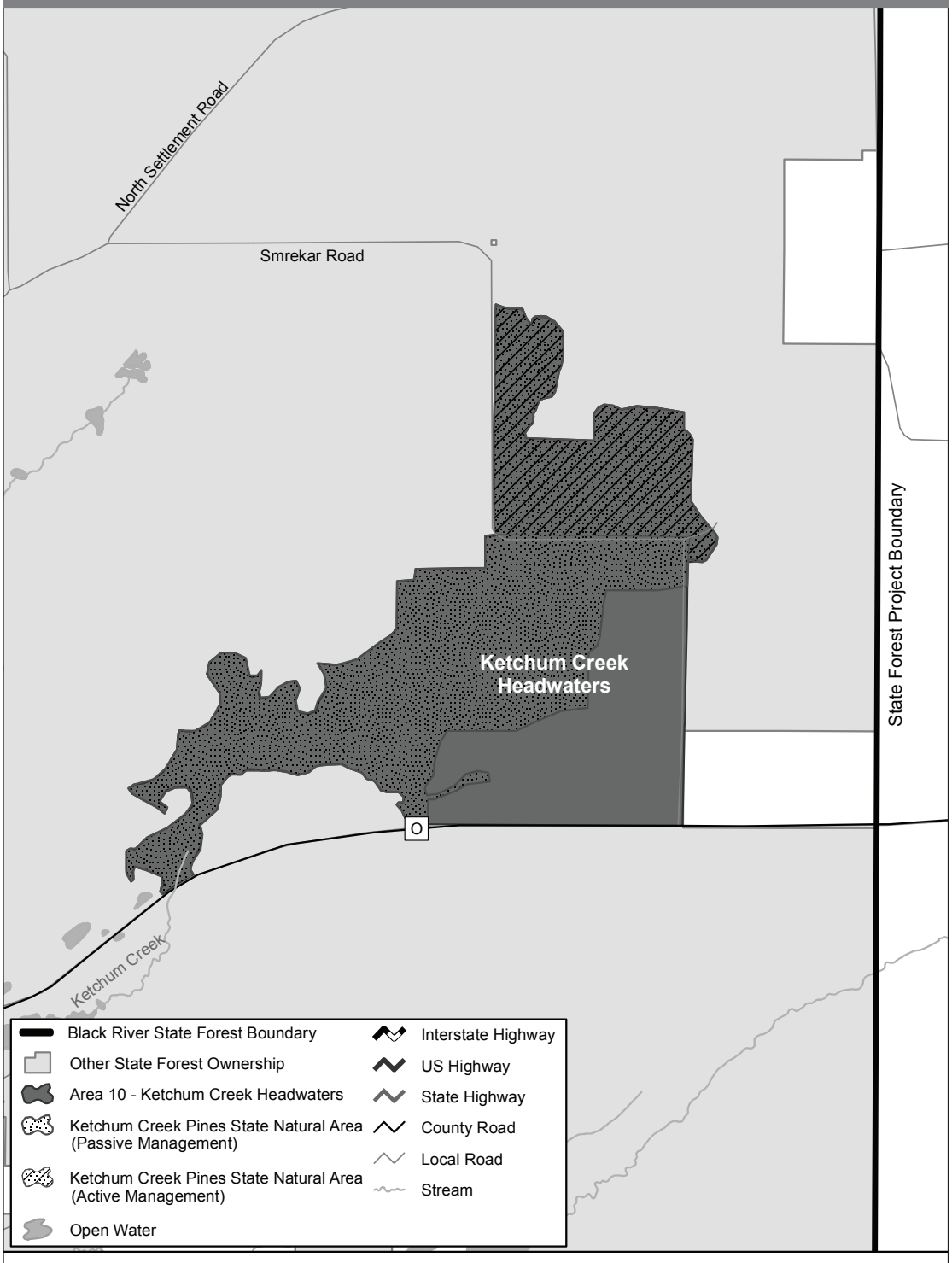
AREA 10 SUMMARY

- Maintain and develop older closed canopy forest, including some areas for potential old growth.
- Manage and maintain a large area of un-fragmented conifer/hardwood forest.
- Protect, manage, and enhance habitat for key species identified in the Biotic Inventory.
- Protect and enhance water resources, especially wetlands and seeps.
- Protect multiple scenic and aesthetic values of the site.
- Designate a 424 acre State Natural Area (140 acres of existing SNA, 284 acres of new SNA).

AREA 10 LOCATOR MAP



MAP 2.15 KETCHUM CREEK HEADWATERS



Area Specific Resource Management Prescriptions
Active Management (284 acres)

- Decrease short-lived species, such as aspen, and increase longer-lived species, such as white pine and oak, primarily through thinning and natural conversion.
- Promote the growth and retention of large white pine and oak through techniques such as thinning, extended rotation, and managed old growth. Follow the DNR Old Growth and Old Forest Handbook management guidelines, particularly related to Managed Old Growth forests. Monitor composition and structure changes to aid future management decisions.
- Thin specific stands in a way that maintains closed canopy conditions within a majority of the native community management area.
- Retain snags and coarse woody debris to promote old growth characteristics whenever their retention does not conflict with other forest management activities or present hazards.
- Follow the DNR Silviculture and Forest Aesthetics Handbook to manage the scenic and aesthetic qualities of the site.
- Designate 127 acres of the 424 acre Ketchum Creek Pines State Natural Area.

Area Specific Resource Management Prescriptions
Passive Management (297 acres)

- Non-commercial forest practices, prescribed fire, and control of invasive species may occur.
- Designate 297 acres of the 424 acre Ketchum Creek Pines State Natural Area (140 acres of existing SNA).

FIGURE 2.11 KETCHUM CREEK HEADWATERS CURRENT LAND COVER

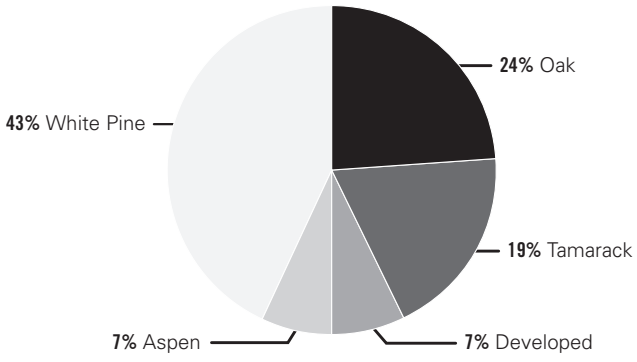


TABLE 2.14 KETCHUM CREEK HEADWATERS CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
White Pine	251	43%	279	48%
Oak	136	24%	151	26%
Tamarack	108	19%	108	19%
Aspen	43	7%	0	0%
Non-forested Types				
Developed	43	7%	43	7%
Total	**581**	**100%**	**581**	**100%**

AREA 11: PARADISE VALLEY PINES

This 669 acre native community management area is located primarily north of the state forest boundary between Woodland Road and Millston Road. This is a complex system significant primarily for its terrestrial features, and diversity in terms of hydrology, animals, and vegetation. The site contains significant, older stands of the geographically restricted white-pine red maple swamp natural community, as well as smaller areas of northern dry-mesic forest and northern sedge meadow. Several small headwater streams also originate in this area that flow into nearby Lee Lake. According to the Biotic Inventory, this area is known to contain two state threatened animals, two animal Species of Special Concern, four plant Species of Special Concern, and several Species of Greatest Conservation Need. The diversity of northern bird species is also significant here and includes Canada, Pine, Black-throated Green, and Blackburnian Warblers, Hermit Thrush and Red-breasted Nuthatch. The area is significant for its aesthetic attributes.

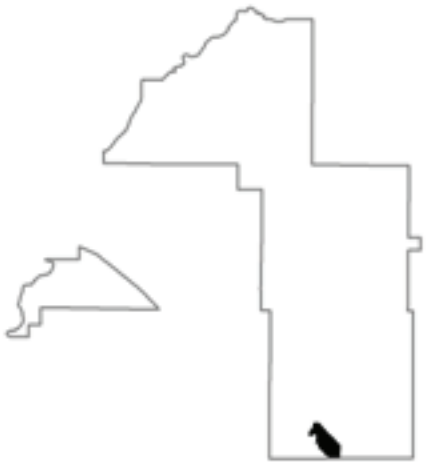
Description of the Forest Resource
The most common timber type is white pine with a small area of aspen and some tamarack.

Long-Term Management Objectives (100 years)
Provide a large area of structurally and functionally diverse, older, intact, connected forest comprised of old growth mixed hardwood and conifer species. Preserve coarse woody debris and standing dead snags for old growth habitat and structural diversity. Protect, manage, and enhance natural communities for ecological values and rare species habitat needs.

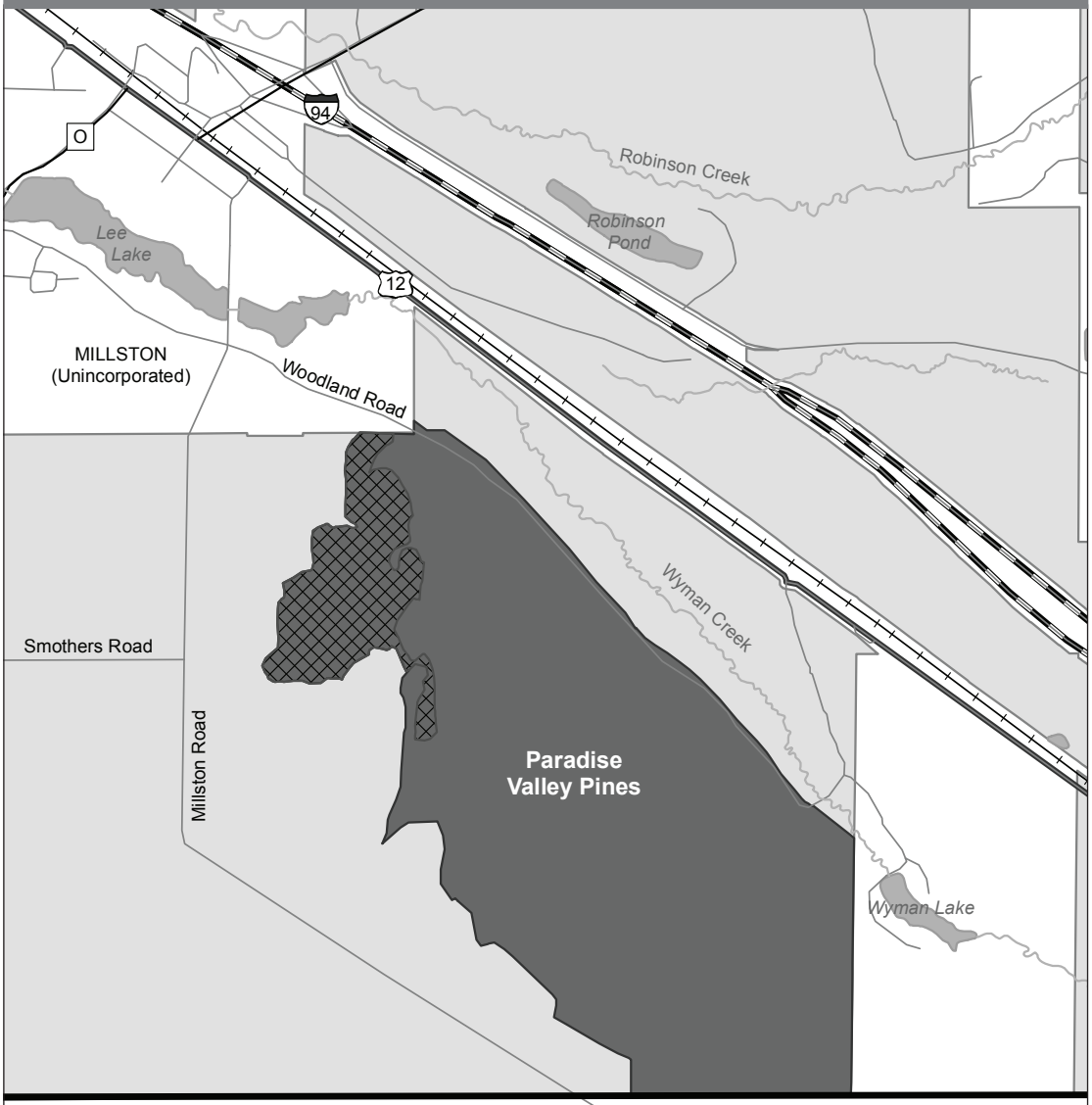
AREA 11 SUMMARY

- Maintain and develop older, closed canopy forests, including some areas for potential old growth.
- Manage and maintain a large area of un-fragmented conifer forest.
- Protect, manage, and enhance habitat for key species identified in the Biotic Inventory.
- Protect and enhance water resources along with scenic and aesthetic values.

AREA 11 LOCATOR MAP



MAP 2.16 PARADISE VALLEY PINES



Short-Term Management Objectives (50 years)

- Develop and maintain an older, closed canopy forest of white pine.
- Enhance forest structural diversity and development of old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
- Protect water quality through protection and maintenance of wetland habitats and seeps consistent with Best Management Practices (BMPs) for water quality.
- Protect multiple scenic and aesthetic qualities of the site.

Area Specific Resource Management Prescriptions
Active Management (595 acres)

- Decrease short-lived species, such as aspen, and increase longer-lived species, such as white pine, primarily through thinning and natural conversion.
- Promote the growth and retention of large white pine through techniques such as thinning, extended rotation, and managed old growth. Follow the DNR Old Growth and Old Forest Handbook management guidelines, particularly related to Managed Old Growth forests. Monitor composition and structural changes to aid future management decisions.
- Thin specific stands in a way that maintains closed canopy conditions within a majority of the actively managed area.
- Retain snags and coarse woody debris to promote old growth characteristics whenever their retention does not conflict with other forest management activities or present hazards.
- Follow the DNR Silviculture and Forest Aesthetics Handbook to manage the scenic and aesthetic qualities of the site.

Area Specific Resource Management Prescriptions
Passive Management (74 acres)

- Control of invasive species, non-commercial forest practices, and prescribed fire may occur.

FIGURE 2.12 PARADISE VALLEY PINES CURRENT LAND COVER

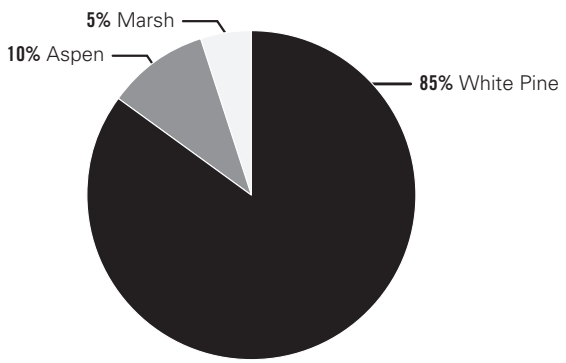


TABLE 2.15 PARADISE VALLEY PINES CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
White Pine	567	85%	597	90%
Aspen	65	10%	35	5%
Non-forested Types				
Marsh	37	5%	37	5%
Total	**669**	**100%**	**669**	**100%**

AREA 12: PEATLANDS

The Peatlands Native Community Management Area consists of five sites totaling 1,203 acres scattered throughout the forest (Map 2.17). They include Ring Marsh (71 acres), Spider Peatlands (106 acres), Komensky Peatlands (190 acres), Starlight/Ketchum Marsh (234 acres), and Washburn Marsh (606 acres). These sites represent examples of several wetland types that have relatively unaltered hydrology, are considered intact, and range in size from small to large. According to the Biotic Inventory, natural communities represented include central poor fen, open bog, tamarack (poor) bog, and northern sedge meadow. Combined, these sites contain numerous rare species, including vertebrate and invertebrate animals that are either threatened or endangered at the state level, and many Species of Greatest Conservation Need and Species of Special Concern. Several rare bird species, including some that are sensitive to habitat size, also use these wetlands for nesting.

Description of the Forest Resource

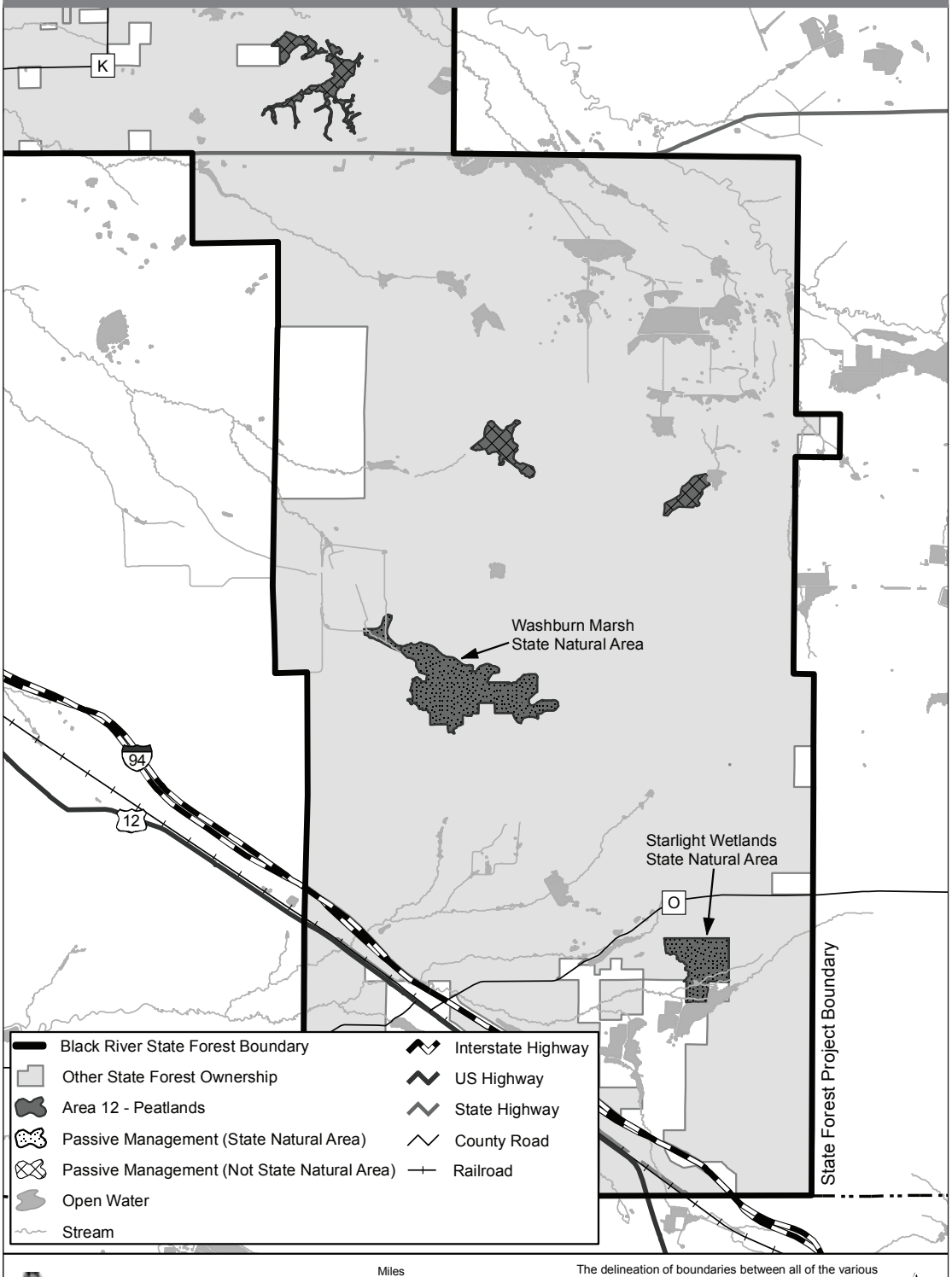
Trees are generally lacking in these open wetland areas. However, some trees exist in the margins of the delineated areas or as scattered "islands."The most common timber type is tamarack and, to a lesser extent, white and jack pine, oak, aspen, and red maple.

AREA 12 SUMMARY

- Protect and maintain site hydrology.
- Protect, manage, and enhance peatlands and associated natural communities.
- Maintain current open landscape conditions.
- Protect multiple scenic and aesthetic qualities of the site.
- Prohibit commercial mossing operations.
- Continue designation of the 298 acre Washburn Marsh State Natural Area. An additional 267 acres will be added to the existing SNA for a total of 565 acres.
- Designate a 233 acre portion of the Starlight Wetlands SNA which exists within both this management area and the Starlight Wetlands Native Community Management Area.

AREA 12 LOCATOR MAP

MAP 2.17 PEATLANDS



Long-Term Management Objectives (100 years)
Maintain lands that are structurally and functionally diverse, and that collectively feature a spectrum of wetland types and sizes and relatively unaltered hydrology. Protect, manage, and enhance natural communities for ecological values and rare species habitat needs.

Short-Term Management Objectives (50 years)
- Protect hydrology of sites.
- Protect hydrology of connected wetland basins, headwater streams, seeps, and other associated hydrologic features.
- Protect water quality through protection and maintenance of wetland habitat and seeps consistent with Best Management Practices (BMPs) for water quality.
- Maintain current open landscape condition of the sites.
- Protect multiple scenic and aesthetic qualities of the site.

Area Specific Resource Management Prescriptions
Active Management
There are no acres in this designation.

Area Specific Resource Management Prescriptions
Passive Management (1,203 acres)
- Non-commercial harvest, prescribed fire, and control of invasive species may occur.
- Prohibit moss harvesting to protect peatland habitat and maintain site hydrology.
- Follow the DNR Silviculture and Forest Aesthetics Handbook to manage the scenic and aesthetic qualities of the site.
- Designate the 565 acre Washburn Marsh State Natural Area (298 acres of existing SNA, plus 267 acres of new SNA).
- Designate a 233 acre portion of the 1,065 acre Starlight Wetlands State Natural Area. This SNA also extends into the Starlight Wetlands Native Community Management Area.

FIGURE 2.13 PEATLANDS CURRENT LAND COVER

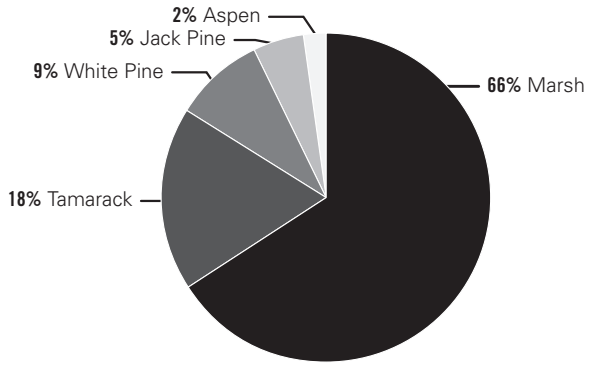


TABLE 2.16 PEATLANDS CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
Tamarack	218	18%	217	18%
White Pine	109	9%	108	9%
Jack Pine	61	5%	24	2%
Red Pine	0	0%	36	3%
Aspen	20	2%	0	0%
Oak	6	0%	0	0%
Red Maple	5	0%	12	1%
Non-forested Types				
Marsh	778	66%	806	67%
Brush	6	0%	0	0%
Total	**1,203**	**100%**	**1,203**	**100%**

PEATLANDS

AREA 13: CATFISH EDDY TERRACES

This 745 acre native community management area is primarily located between the Black River to the west and Hawk Island Road, Perry Creek Road, and River Drive to the east. The area includes three separate areas, one of which is separated by private land, and the other by old agricultural fields (Manchester Bottoms). The centrally located parcel contains lands on each side of Perry Creek. This is a complex system significant for both its aquatic and terrestrial features, and diverse in terms of hydrology, topography, soils, animals, and vegetation. The lower reach of Perry creek flows through a steep-walled gorge of Cambrian sandstone that is geologically unique. The more extensive natural communities of the site are floodplain forest, southern mesic forest, and northern dry-mesic forest. The site also includes a high density and diversity of microsites including moist cliff, seepages, springs, and spring runs. According to the Biotic Inventory, this area is known to contain a number of rare species including three state threatened animals, one state endangered plant, one state threatened plant, and numerous Species of Greatest Conservation Need and Species of Special Concern. The area is significant for its scenic attributes and adjacent recreational amenities.

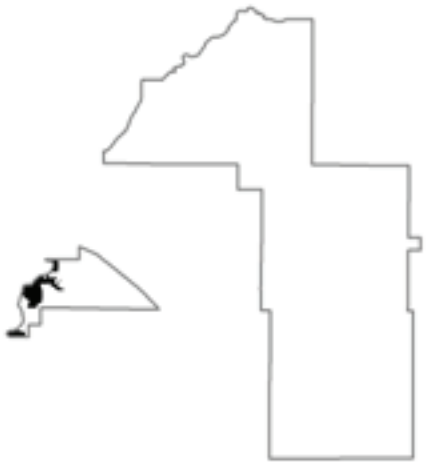
Description of the Forest Resource

Steep slopes, cliffs, and spring seeps, have made portion of this area inaccessible to timber harvesting. The most common timber type in upland areas is white pine with some oak, jack pine and red pine plantations. Lowland areas include a mixture of silver maple, red maple, sugar maple, river birch, yellow birch, black ash, hackberry, bitternut hickory, butternut, American elm, red elm, white pine, and some basswood.

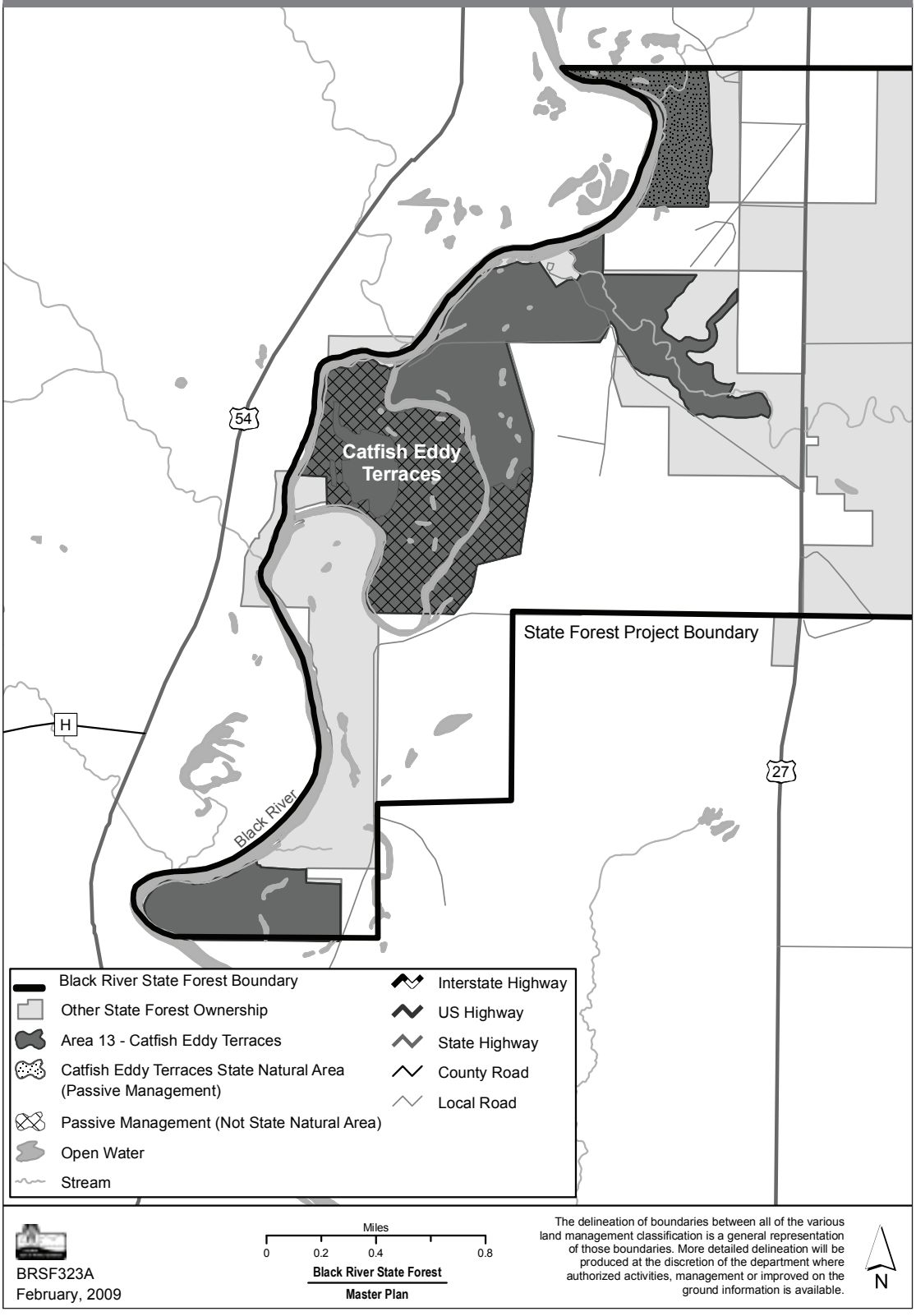
AREA 13 SUMMARY

- Maintain and develop an older closed canopy forest, including some areas for potential old growth.
- Manage and maintain an area of un-fragmented upland and bottomland/mixed forest.
- Manage red pine plantations to create a natural appearance.
- Protect, manage, and enhance habitat for key species identified in the biotic inventory.
- Protect and enhance water resources along with scenic and aesthetic values.
- Designate a 75 acre State Natural Area.

AREA 13 LOCATOR MAP



MAP 2.18 CATFISH EDDY TERRACES



Long-Term Management Objectives (100 years)
Provide a large area of structurally and functionally diverse, older, intact, connected forest comprised of large diameter maple, white pine, and mixed hardwood species. Preserve coarse woody debris and standing dead snags for old growth habitat and structural diversity. Protect, manage, and enhance natural communities for ecological values and rare species habitat needs.

Short-Term Management Objectives (50 years)
- Develop and maintain an older, closed canopy forest of longer-lived species, such as white pine in the uplands and bottomland hardwoods in the lowlands.
- Enhance forest structural diversity and development of old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
- Protect water quality through protection and maintenance of riparian habitat and seeps consistent with Best Management Practices (BMPs) for water quality.
- Protect multiple scenic and aesthetic qualities of the Black River and Perry Creek.

Area Specific Resource Management Prescriptions
Active Management (445 acres)
- Promote the growth and retention of large white pine and other species through techniques such as thinning, extended rotation, and managed old growth. Follow the DNR Old Growth and Old Forest Handbook, particularly related to Managed Old Growth forests. Monitor composition and structure changes to aid future management decisions.
- Thin specific stands in a way that maintains closed canopy conditions within a majority of the actively managed area.
- Actively manage red pine plantations primarily through thinning and natural regeneration techniques to create stands with a natural appearance and large diameter trees.
- Retain snags and coarse woody debris to promote old growth characteristics whenever their retention does not present hazards or conflict with other forest management activities.
- For the riparian lands along the Black River and Perry Creek, follow the DNR Silviculture and Forest Aesthetics Handbook guidelines for Class A Scenic Management Zones.

Area Specific Resource Management Prescriptions
Passive Management (300 acres)
- Control of invasive species, non-commercial forest practices, and prescribed fire may occur.
- Designate the 75 acre Catfish Eddy Terraces State Natural Area.

FIGURE 2.14 CATFISH EDDY TERRACES CURRENT LAND COVER

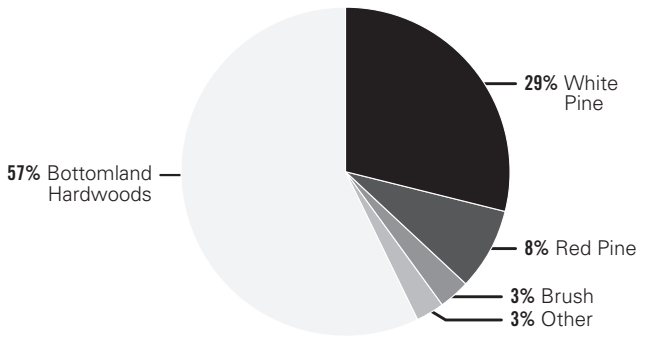


TABLE 2.17 CATFISH EDDY TERRACES CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
Bottomland Hardwoods	422	57%	422	57%
White Pine	215	29%	215	29%
Red Pine	62	8%	62	8%
Non-forested Types				
Brush	26	3%	26	3%
Other	20	3%	20	3%
Total	**745**	**100%**	**745**	**100%**

AREA 14: ROBINSON/MILLSTON PINES

This 626 acre native community management area is located primarily south of Robinson Creek, west of the Town of Millston, and between Habelman Road, Smothers Road, Millston Road, and Woodland Road. This is a complex system significant for its aquatic and terrestrial features, and diverse in terms of hydrology, animals, and vegetation. The site contains significant, older stands of the geographically restricted white-pine/red maple swamp natural community. The site also contains headwater streams that occur as small patches within a forested matrix of pine and are an important source of water for Robinson Creek to the north. Robinson Creek is also noteworthy in that it is one of the few streams in the area that is a clear, soft, cool to cold water stream that supports rare aquatic animals and trout. According to the Biotic Inventory, this area is known to contain two state threatened animals, six animal Species of Special Concern, three plant Species of Special Concern, and several Species of Greatest Conservation Need. The diversity of northern bird species is also significant here and includes Canada, Pine, Black-throated Green, and Black-burnian Warblers, and Winter Wren. The area is significant for its aesthetic attributes.

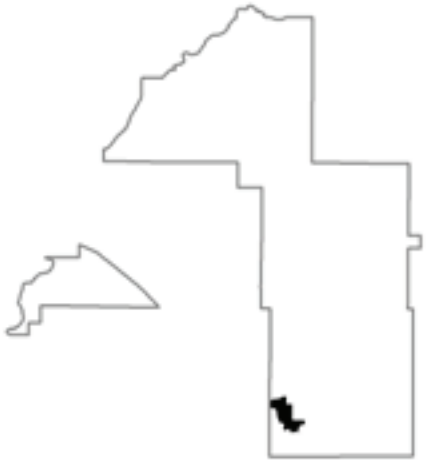
Description of the Forest Resource

The most common timber type is white pine. The site also contains a component of swamp hardwoods, tamarack, and jack pine.

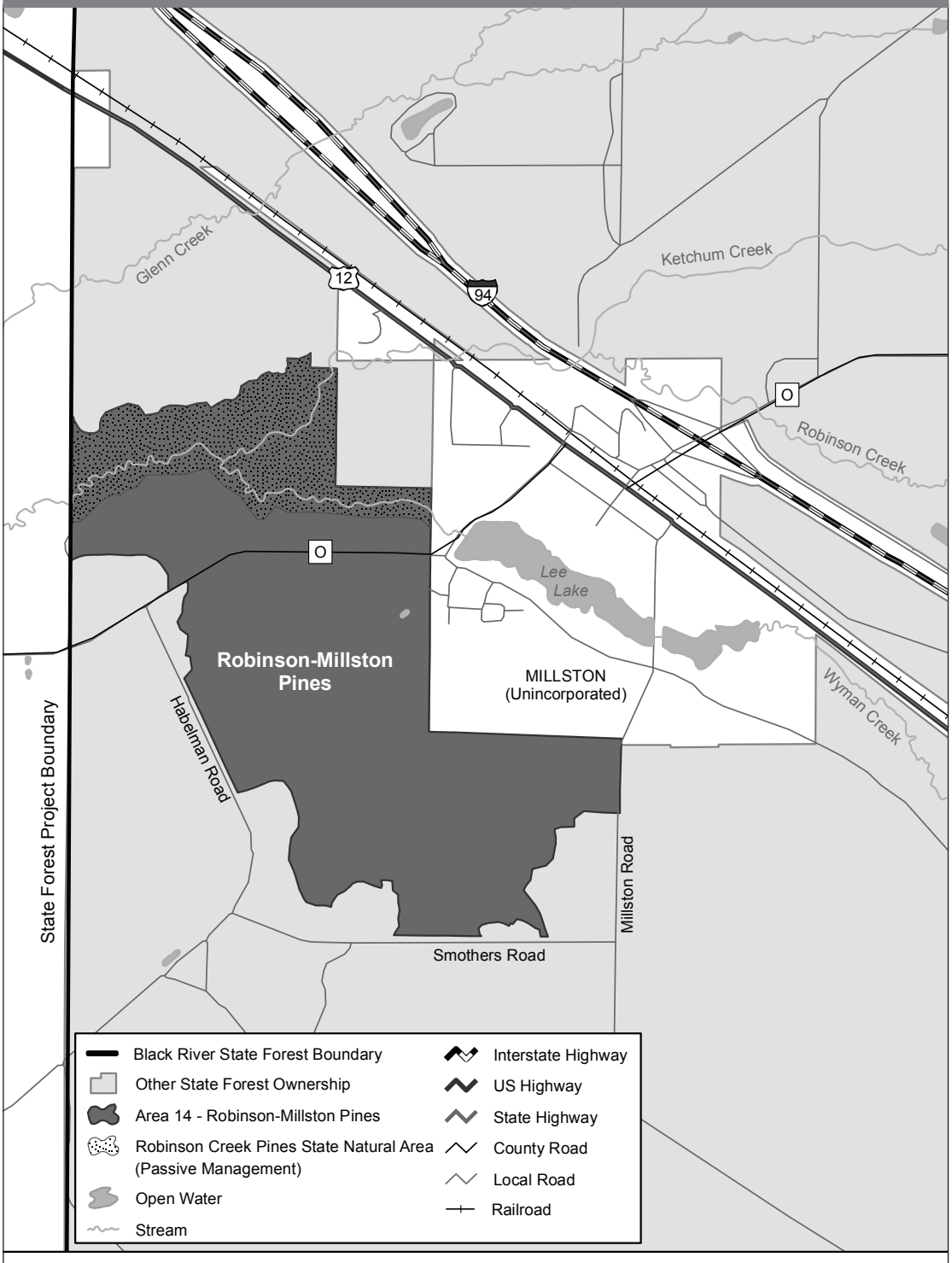
AREA 14 SUMMARY

- Maintain and develop older, closed canopy forests, including some areas for potential old growth.
- Manage and maintain a large area of un-fragmented conifer forest.
- Protect, manage, and enhance habitat for key species identified in the Biotic Inventory.
- Protect and enhance water resources along with scenic and aesthetic values.
- Designate a 126 acre State Natural Area (85 acres of existing SNA, 41 acres of new SNA).

AREA 14 LOCATOR MAP



MAP 2.19 ROBINSON/MILLSTON PINES



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The delineation of boundaries between all of the various land management classification is a general representation of those boundaries. More detailed delineation will be produced at the discretion of the department where authorized activities, management or improved on the ground information is available.

Long-Term Management Objectives (100 years)
Provide a large area of structurally and functionally diverse, older, intact, connected forest comprised of old growth pine, mixed hardwood, and mixed conifer species. Preserve coarse woody debris and standing dead snags for old growth habitat and structural diversity. Protect, manage, and enhance natural communities for ecological values and rare species habitat needs.

Short-Term Management Objectives (50 years)
- Develop and maintain an older, closed canopy forest of white pine.
- Enhance forest structural diversity and development of old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
- Protect water quality through protection and maintenance of riparian and wetland habitats and seeps consistent with Best Management Practices (BMPs) for water quality.
- Protect the scenic and aesthetic qualities of the site, including riparian areas.

Area Specific Resource Management Prescriptions
Active Management (500 acres)
- Decrease short-lived species, such as aspen, and increase longer-lived species, such as white pine, primarily through thinning and natural conversion.
- Promote the growth and retention of large white pine through techniques such as thinning, extended rotation, and managed old growth. Follow the DNR Old Growth and Old Forest Handbook, particularly related to Managed Old Growth forests. Monitor composition and structure changes to aid future management decisions.
- Thin specific stands in a way that maintains closed canopy conditions within one third of the actively managed area.
- Retain snags and coarse woody debris to promote old growth characteristics whenever their retention does not conflict with other forest management activities or present hazards.

Area Specific Resource Management Prescriptions
Passive Management (126 acres)
- Control of invasive species, non-commercial forest practices, and prescribed fire may occur.
- Follow the DNR Silviculture and Forest Aesthetics Handbook to manage the scenic and aesthetic qualities of the site, including the guidelines for Class A Scenic Management Zones along stream shorelines.
- Designate the 126 acre Robinson Creek Pines State Natural Area (85 acres of existing SNA, 41 acres of new SNA).

FIGURE 2.15 ROBINSON/MILLSTON PINES CURRENT LAND COVER

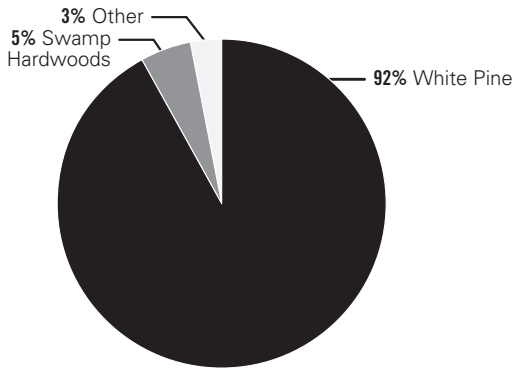


TABLE 2.18 ROBINSON/MILLSTON PINES CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
White Pine	577	92%	577	92%
Swamp Hardwoods	30	5%	30	5%
Non-forested Types				
Other	19	3%	19	3%
Total	**626**	**100%**	**626**	**100%**

AREA 15: SETTLEMENT ROAD PINE SWAMP

This 156 acre native community management area is located immediately northeast and southeast of the intersection of Shale Road and North Settlement Road. The significance of this site, according to the Biotic Inventory, is that it contains an old forest of white pine-red maple swamp natural community in the lowlands and old white and red pine, as well as oak in the uplands. Currently, the site contains the only mature forest in the vicinity and supports one state threatened bird and two plant Species of Special Concern that do not find suitable habitat in nearby cutover areas. The site also harbors a small headwater stream.

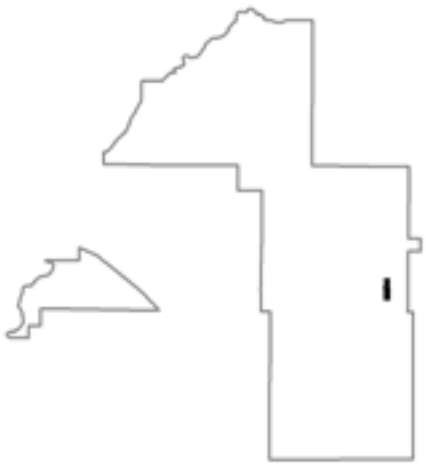
Description of the Forest Resource
The most common timber types are white pine and oak.

Long-Term Management Objectives (100 years)
Provide a small representative example of a structurally and functionally diverse, older forest in both upland and lowland areas that is comprised of old growth pine, oak, and mixed hardwood species. Preserve coarse woody debris and standing dead snags for old growth habitat and structural diversity. Protect, manage, and enhance natural community for ecological values and rare species habitat needs.

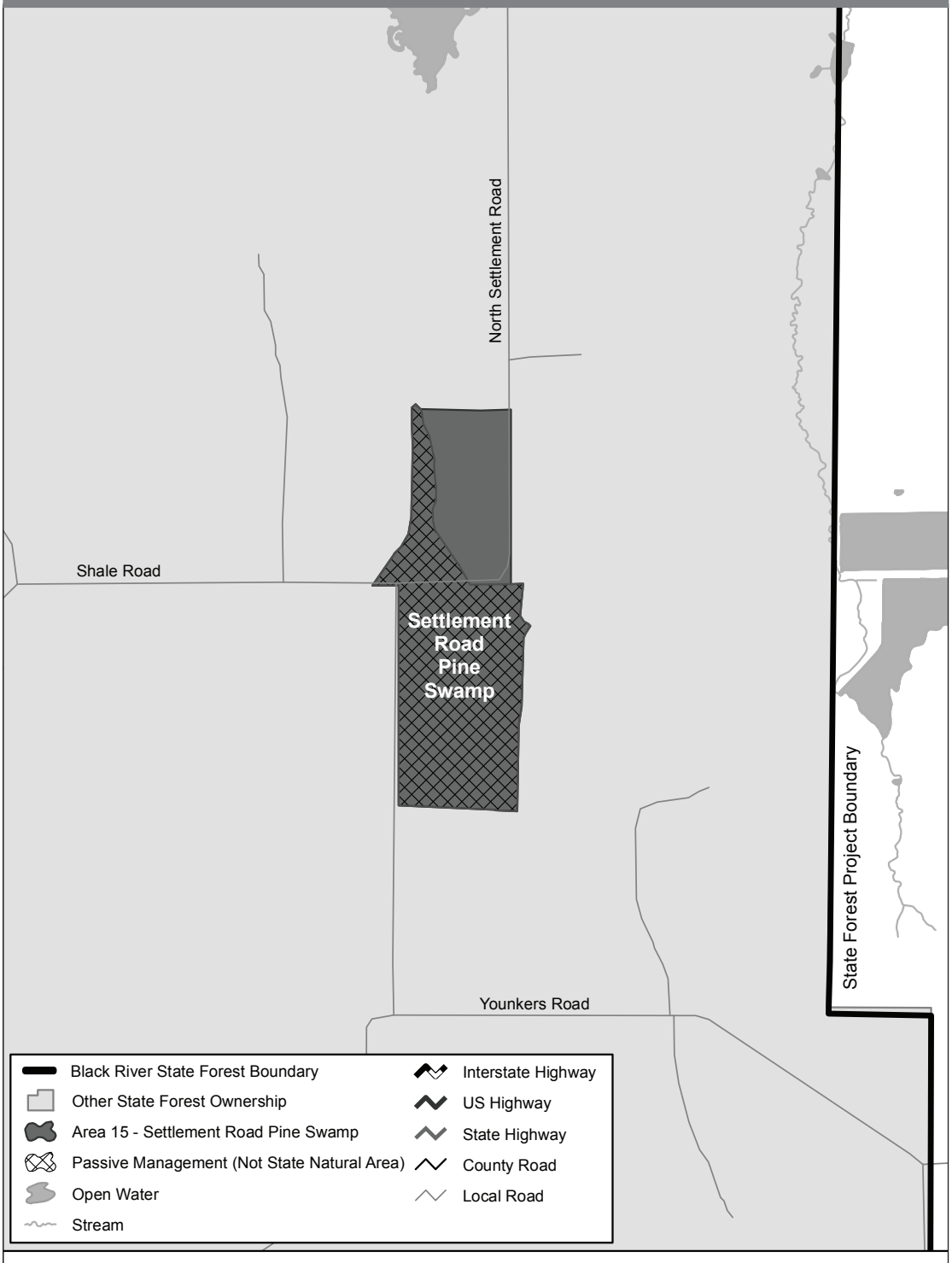
AREA 15 SUMMARY

- Maintain and develop older closed canopy forests, including potential old growth.
- Protect, manage, and enhance habitat for key species identified in the Biotic Inventory.
- Protect and enhance scenic and aesthetic values.

AREA 15 LOCATOR MAP



MAP 2.20 SETTLEMENT ROAD PINE SWAMP



Short-Term Management Objectives (50 years)

- Develop and maintain an older, closed canopy forest of longer-lived species such as white and red pine, and white oak.
- Enhance forest structural diversity and development of old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
- Protect multiple scenic and aesthetic qualities, as well as the water resources of the site.

Area Specific Resource Management Prescriptions
Active Management (43 acres)

- Decrease short-lived species, such as aspen, and maintain longer-lived species, such as oak (especially white oak), primarily through thinning.
- Promote the growth and retention of large oak (especially white oak) and pines through techniques such as thinning, extended rotation, and managed old growth. Follow the DNR Old Growth and Old Forest Handbook, particularly related to Managed Old Growth forests. Monitor composition and structure changes to aid future management decisions.
- Retain snags and coarse woody debris to promote old growth characteristics whenever their retention does not present hazards or conflict with other forest management activities.
- Follow the DNR Silviculture and Forest Aesthetics Handbook to manage the scenic and aesthetic qualities of the site.

Area Specific Resource Management Prescriptions
Passive Management (113 acres)

- Control of invasive species, non-commercial forest practices, and prescribed fire may occur.

FIGURE 2.16 SETTLEMENT ROAD PINE SWAMP CURRENT LAND COVER

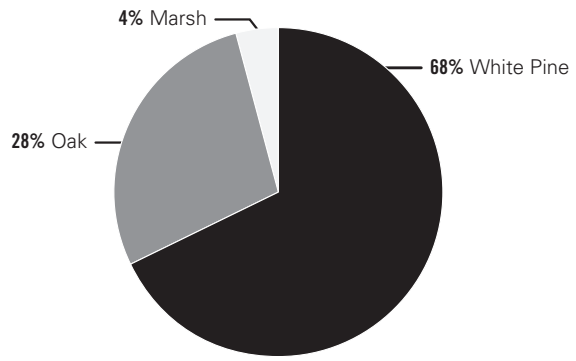
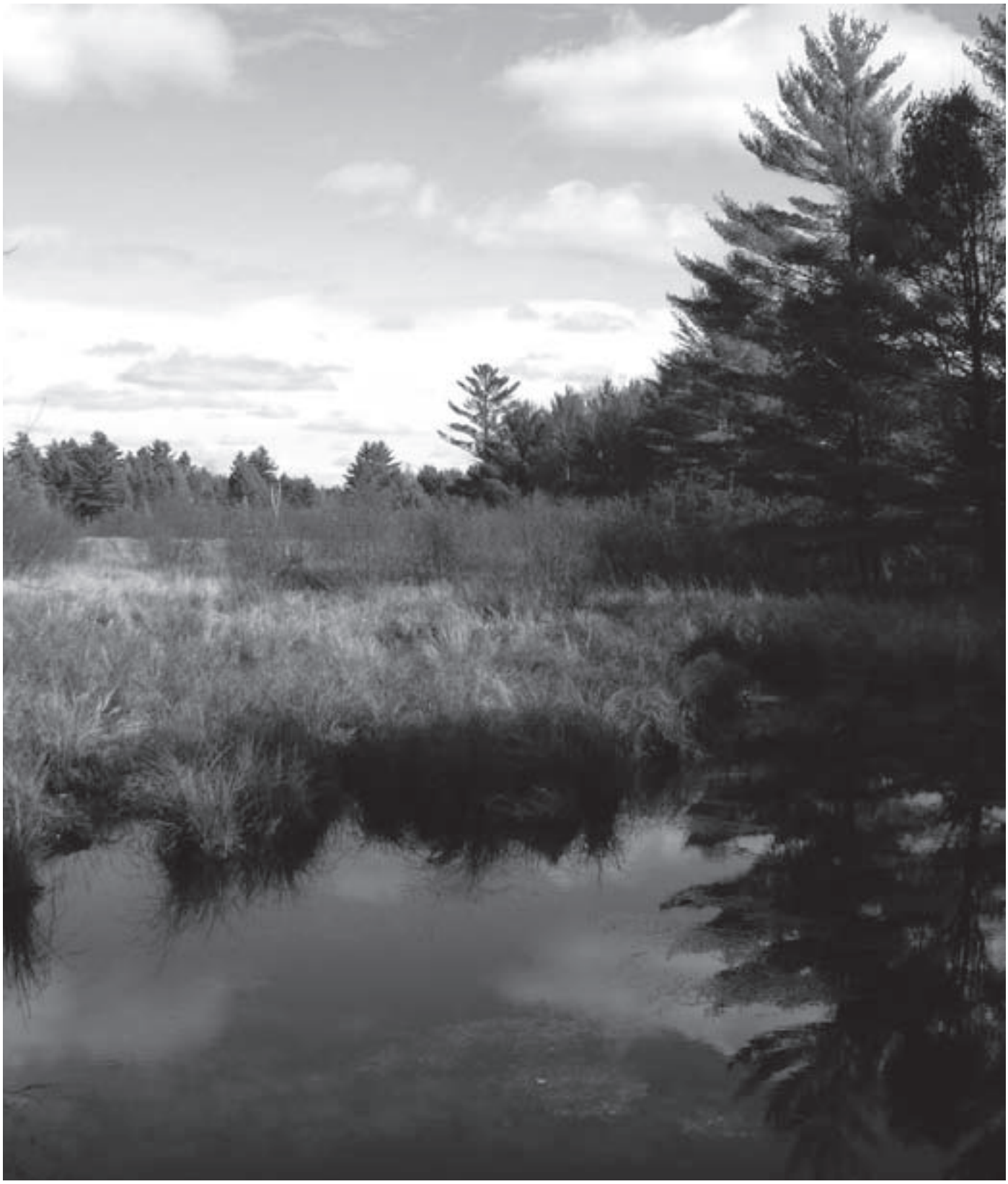


TABLE 2.19 SETTLEMENT ROAD PINE SWAMP CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
White Pine	107	68%	107	68%
Non-forested Types				
Oak	43	28%	43	28%
Marsh	6	4%	6	4%
Total	**156**	**100%**	**156**	**100%**



AREA 16: STANTON PINES

This 971 acre native community management area is located primarily between I-94, Hunter Haven Road, and Stanton Creek Road. This is a complex system that is diverse in terms of hydrology, animals, and vegetation. According to the Biotic Inventory, this site contains several older stands of the geographically restricted white pine-red maple swamp natural community, as well as smaller areas of northern dry-mesic forest and tamarack (poor) swamp. One small headwater stream that flows into nearby Glen Creek also originates in this area. The area is known to contain one state threatened animal, one animal Species of Special Concern, three plant Species of Special Concern, and several Species of Greatest Conservation Need. Portions of this area are significant for aesthetic attributes.

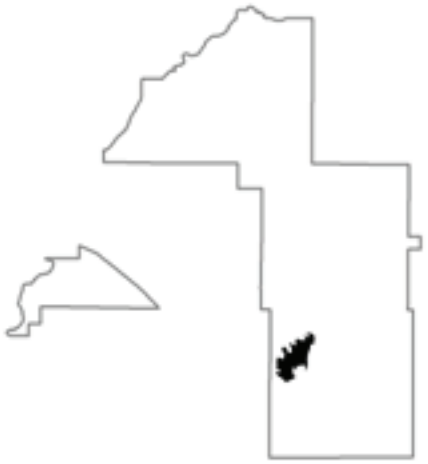
Description of the Forest Resource
The most common timber type is white pine with a small area of tamarack. The area contains several older isolated stands of white pine surrounded by a younger forest of the same type.

Long-Term Management Objectives (100 years)
Maintain and enhance a large, old white pine forest that is nearing biological rotation and features some characteristics of old growth, including increased structural diversity and course woody debris. Harvest selected stands that have reached biological rotation. Protect, manage, and enhance natural communities for ecological values and rare species habitat needs.

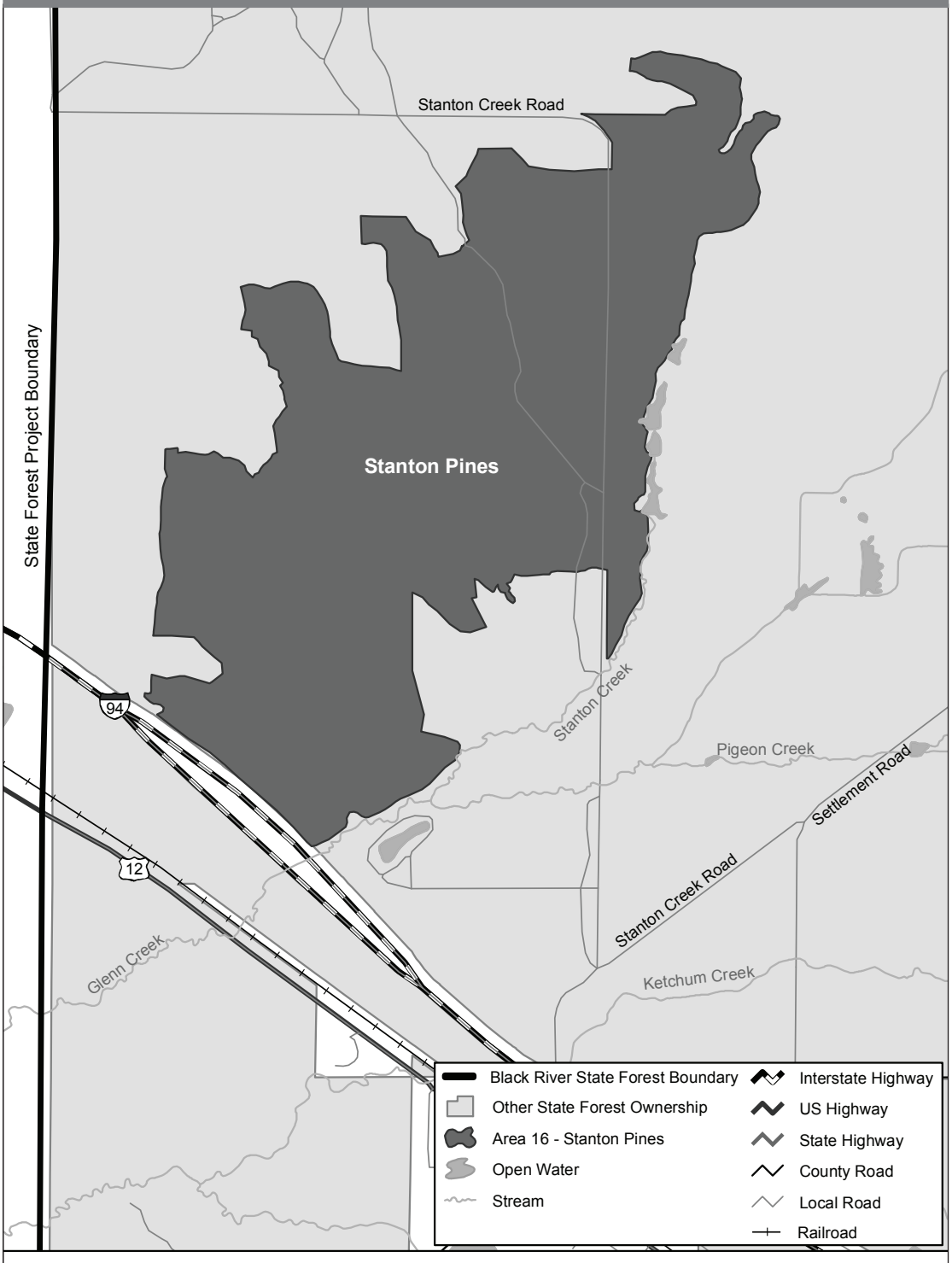
AREA 16 SUMMARY

- Develop and maintain an older white pine forest, including some areas for potential old growth.
- Protect, manage, and enhance habitat for key species identified in the Biotic Inventory.
- Enhance water quality, and protect wetlands and seeps.
- Protect multiple scenic and aesthetic resources.

AREA 16 LOCATOR MAP



MAP 2.21 STANTON PINES



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Short-Term Management Objectives (50 years)

- Develop and maintain an older forest of white pine, including some areas with closed canopy conditions.
- Improve forest structural diversity with large diameter trees, standing dead snags, and coarse woody debris.
- Protect water quality through protection and maintenance of wetland habitats and seeps consistent with Best Management Practices (BMPs) for water quality.
- Protect multiple scenic and aesthetic qualities of the site, including riparian areas along stream shorelines.

Area Specific Resource Management Prescriptions
Active Management (971 acres)

- Increase white pine primarily through thinning and natural conversion.
- Manage stands using biological rotation for white pine as described in the DNR Silviculture and Forest Aesthetics Handbook. Monitor composition and structure changes to aid future management decisions.
- Promote the growth and retention of large white pine through techniques such as thinning and extended rotation.
- Retain snags and coarse woody debris to promote old growth characteristics whenever their retention does not conflict with other forest management activities or present hazards.
- Follow the DNR Silviculture and Forest Aesthetics Handbook to manage the scenic and aesthetic qualities of the site, including guidelines for Class A Scenic Management Zones along stream shorelines.

Area Specific Resource Management Prescriptions
Passive Management

There are no acres in this designation.

FIGURE 2.17 STANTON PINES CURRENT LAND COVER

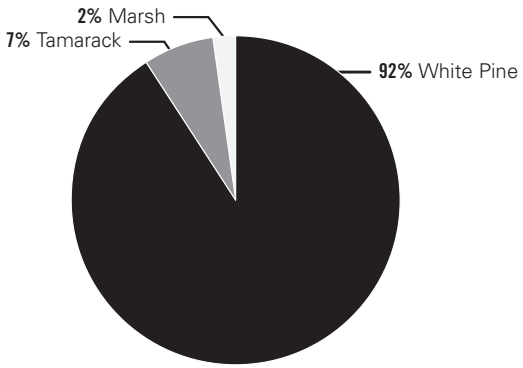


TABLE 2.20 STANTON PINES CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
White Pine	890	92%	890	92%
Tamarack	66	7%	66	7%
Non-forested Types				
Marsh	15	2%	15	2%
Total	**971**	**100%**	**971**	**100%**

AREA 17: STARLIGHT WETLANDS

This 1,650 acre native community management area is located south of County Trunk O, west of Starlight Road, and east of an artificially impounded cranberry farm. The Biotic Inventory describes this site as a highly complex system significant for both its aquatic and terrestrial features, and diverse in terms of hydrology, soils, animals and vegetation. The site is large and contains a diverse mosaic of natural communities that are relatively intact, including white pine-red maple swamp, black spruce swamp, northern dry-mesic forest, southern dry-mesic forest, northern sedge meadow, and central poor fen. The area is known to contain one state endangered animal, one state threatened animal, four animal Species of Special Concern, eight plant Species of Special Concern, and numerous Species of Greatest Conservation Need. The diversity of northern bird species is also significant here and includes Canada, Pine, Black-throated Green, and Blackburnian Warblers, and Winter Wren. The Yellow-rumped Warbler and Yellow-bellied Flycatcher also occur locally in the spruce-tamarack stands. The area is significant for its aesthetic attributes.

Description of the Forest Resource

The most common timber types are white pine, oak, and black spruce, and to a lesser extent, jack pine, tamarack, red maple, and swamp hardwoods. The site also contains a component of yellow birch within the white pine stands, and several red pine plantations.

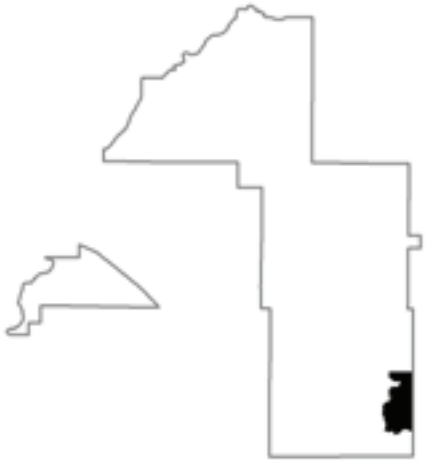
Long-Term Management Objectives (100 years)

Provide a relatively extensive area of structurally and functionally diverse, older, intact, connected forest comprised of old growth pine, mixed hardwood, and mixed conifer species. Preserve coarse woody debris and standing dead snags for old growth habitat and structural diversity. Protect, manage, and enhance natural communities for ecological values and rare species habitat needs.

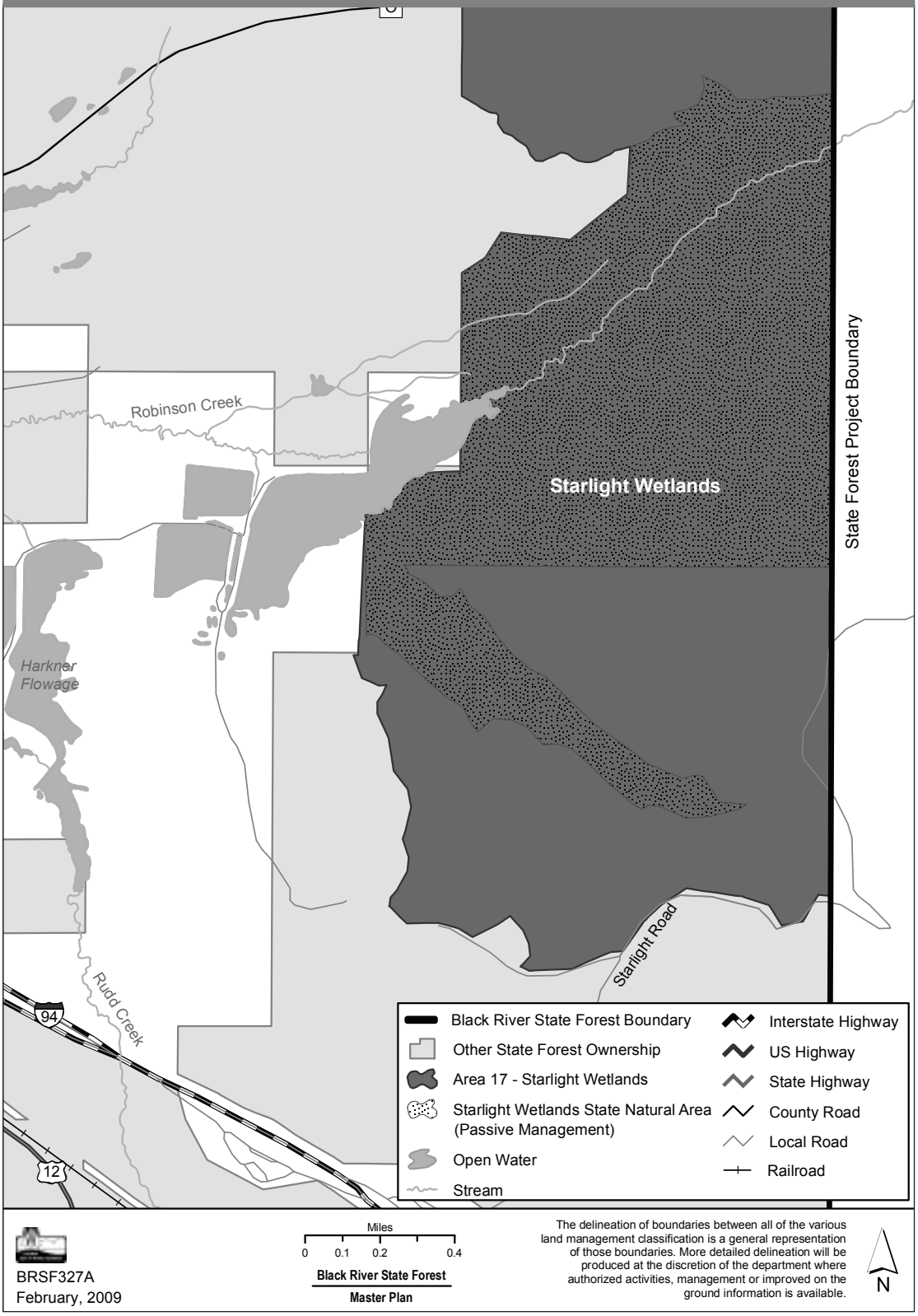
AREA 17 SUMMARY

- Maintain and develop a large, older, closed canopy forest, including some areas for potential old growth.
- Protect, manage, and enhance habitat for key species identified in the Biotic Inventory.
- Enhance water quality, and protect wetlands and seeps.
- Protect multiple scenic and aesthetic resources.
- Manage red pine plantations to create a natural appearance.
- Designate an 832 acre State Natural Area.

AREA 17 LOCATOR MAP



MAP 2.22 STARLIGHT WETLANDS



Short-Term Management Objectives (50 years)

- Develop and maintain an older, closed canopy forest of longer-lived species such as white pine and oak.
- Enhance forest structural diversity and development of old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
- Protect water quality through protection and maintenance of wetland habitat and seeps consistent with Best Management Practices (BMPs) for water quality.
- Protect multiple scenic and aesthetic qualities of the site, including riparian areas along stream shorelines.

Area Specific Resource Management Prescriptions
Active Management (818 acres)

- Decrease short-lived species, such as aspen, and increase longer-lived species, such as white pine and oak, primarily through thinning and natural conversion.
- Promote the growth and retention of large white pine and oak through techniques such as thinning, extended rotation, and managed old growth. Follow the DNR Old Growth and Old Forest Handbook, particularly related to Managed Old Growth forests. Monitor composition and structure changes to aid future management decisions.
- Thin specific stands in a way that maintains closed canopy conditions within a majority of the actively managed area.
- Actively manage red pine plantations primarily through thinning and natural regeneration techniques to create stands with a natural appearance and large diameter trees.
- Retain snags and coarse woody debris to promote old growth characteristics whenever their retention does not conflict with other forest management activities or present hazards.

Area Specific Resource Management Prescriptions
Passive Management (832 acres)

- Control of invasive species, non-commercial forest practices, and prescribed fire may occur.
- Follow the DNR Silviculture and Forest Aesthetics Handbook to manage the scenic and aesthetic qualities of the site, including guidelines for Class A Scenic Management Zones along stream shorelines.
- Designate an 832 acre portion of the 1,065 acre Starlight Wetlands State Natural Area. This SNA also extends into the Peatlands Native Community Management Area.

FIGURE 2.18 STARLIGHT WETLANDS CURRENT LAND COVER

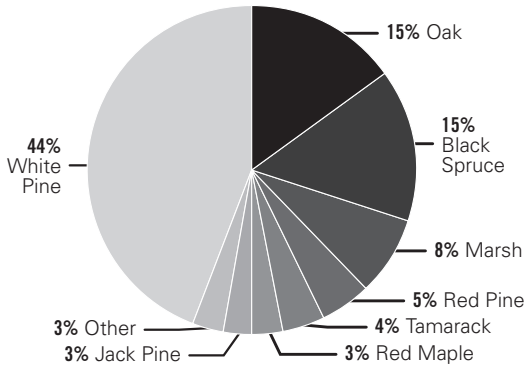


TABLE 2.21 STARLIGHT WETLANDS CURRENT AND PREDICTED LAND COVER

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
White Pine	709	44%	792	48%
Oak	255	15%	132	8%
Black Spruce	245	15%	248	15%
Red Pine	88	5%	83	5%
Tamarack	68	4%	66	4%
Red Maple	49	3%	115	7%
Jack Pine	47	3%	33	2%
Non-forested Types				
Marsh	135	8%	132	8%
Other	54	3%	49	3%
Total	**1,650**	**100%**	**1,650**	**100%**